RECORD AND BRIEFS

Supreme Court, U.S.
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No. _____

In The
Supreme Court of the United States

STATE OF WASHINGTON,

Petitioner,

v.

UNITED STATES OF AMERICA, ET AL.

Respondents.

ON PETITION FOR WRIT OF CERTIORARI
TO THE UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

PETITION FOR WRIT OF CERTIORARI

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QUESTIONS PRESENTED

In a series of treaties, the federal government promised northwest Indian tribes "[t]he right of taking fish, at all usual and accustomed grounds and stations . . . in common with all citizens." This Court has held that this language guarantees the tribes "a fair share of the available fish," meaning fifty percent of each salmon run, revised downward "if tribal needs may be satisfied by a lesser amount." *Washington v. Washington State Commercial Passenger Fishing Vessel Ass'n*, 443 U.S. 658, 685 (1979).

In this case, the Ninth Circuit held that the treaties instead guaranteed "that the number of fish would always be sufficient to provide a 'moderate living' to the Tribes." App. 94a. On that basis, the panel held that the treaties require Washington to replace culverts under state roads that restrict salmon passage. The court ordered the State to replace hundreds of culverts, at a cost of several billion dollars, even though it is undisputed that: (1) the federal government—the lead Plaintiff—specified the design and granted permits for the overwhelming majority of culverts at issue; and (2) many culvert replacements will have no benefit for salmon because of other non-State owned barriers to salmon on the same streams.

The questions presented are:

1. Whether the treaty "right of taking fish, at all usual and accustomed grounds and stations . . . in common with all citizens" guaranteed "that the number of fish would always be sufficient to provide a 'moderate living' to the Tribes."

2. Whether the district court erred in dismissing the State's equitable defenses against the federal government where the federal government signed these treaties in the 1850's, for decades told the State to design culverts a particular way, and then filed suit in 2001 claiming that the culvert design it provided violated the treaties it signed.

3. Whether the district court's injunction violates federalism and comity principles by requiring Washington to replace hundreds of culverts, at a cost of several billion dollars, when many of the replacements will have no impact on salmon and Plaintiffs showed no clear connection between culvert replacement and tribal fisheries.

PARTIES

Petitioner is the State of Washington, which was the defendant at trial and appellant at the Ninth Circuit.

Respondents are the United States of America; Confederated Tribes and Bands of the Yakama Nation; Hoh Indian Tribe; Jamestown S'Klallam Tribe; Port Gamble S'Klallam Tribe; Lower Elwha Klallam Tribe; Lummi Nation; Makah Tribe; Muckleshoot Indian Tribe; Nisqually Indian Tribe; Nooksack Tribe; Puyallup Tribe; Quileute Indian Tribe; Quinault Indian Nation; Sauk-Suiattle Tribe; Skokomish Indian Tribe; Squaxin Island Tribe; Stillaguamish Tribe of Indians; Suquamish Indian Tribe; Swinomish Indian Tribal Community; Tulalip Tribes; and Upper Skagit Indian Tribe. Respondents were the plaintiffs at trial and the appellees at the Ninth Circuit.

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INTRODUCTION

The Ninth Circuit's opinion below adopts a treaty interpretation already rejected by this Court, conflicts with decisions of this Court and other circuits, and creates a massive new treaty obligation that will "significantly affect natural resource management throughout the Pacific Northwest." App. 41a. This Court should grant certiorari.

In 1854 and 1855, the federal government signed treaties with many northwest Indian tribes, protecting their "right of taking fish, at all usual and accustomed grounds and stations . . . in common with all citizens[.]" *Washington v. Washington State Commercial Passenger Fishing Vessel Ass'n*, 443 U.S. 658, 674 & n.21 (1979) (*Fishing Vessel*). This Court has interpreted this language many times, and has held that it guarantees the signatory tribes three key rights: (1) access to traditional fishing places, *United States v. Winans*, 198 U.S. 371, 381-82 (1905); (2) freedom from some state fishing regulations, *Puyallup Tribe v. Dep't of Game of Washington*, 391 U.S. 392, 399 (1968); and (3) "a fair share of the available fish," up to 50% of each salmon run, *Fishing Vessel*, 443 U.S. at 685. Exercising these rights, western Washington tribes take roughly 1.5 million salmon annually. App. 183a-86a. And the State of Washington has spent hundreds of millions of dollars to preserve salmon for the benefit of tribes and all residents. App. 32; Ninth Circuit Excerpts of Record (ER) 136, 148, 739-40.

In 2001, the federal government and several tribes sued the State (a non-party to the treaties) claiming the treaties create an additional right never

recognized by this Court: to force Washington to replace culverts under state roads that restrict fish passage. The Ninth Circuit ruled in their favor. It interpreted *Fishing Vessel* to guarantee "that the number of fish would always be sufficient to provide a 'moderate living' to the Tribes." App. 94a. And it concluded that state culverts impair this right. The Ninth Circuit denied rehearing en banc over the objection of nine judges. App. 1a-57a.

The panel's unworkable treaty interpretation conflicts with this Court's decision in *Fishing Vessel*. There, the Tribes argued that the treaties entitled them to enough fish to meet "their commercial and subsistence needs." *Fishing Vessel*, 443 U.S. at 670. The federal government disagreed, arguing "that the Indians were entitled either to a 50% share of the 'harvestable' fish that . . . passed through their fishing places, or to their needs, *whichever was less*." *Id.* (emphasis added) (footnote omitted). This Court "agree[d] with the Government." *Id.* at 685. Thus, as the en banc Ninth Circuit previously explained: "*Fishing Vessel* did not hold that the Tribes were entitled to any particular minimum allocation of fish." *United States v. Washington*, 759 F.2d 1353, 1359 (9th Cir. 1985) (en banc). The panel here nonetheless held that the treaties promised there would always be enough fish "to provide a 'moderate living' to the Tribes," App. 94a, "turn[ing] *Fishing Vessel* on its head," App. 24a.

The panel also rejected the State's equitable defenses, citing prior Ninth Circuit opinions holding that equitable defenses are unavailable when the federal government brings treaty claims on behalf of tribes. App. 96a-99a. That holding is contrary to this

Court's decision in *City of Sherrill v. Oneida Indian Nation of New York*, 544 U.S. 197 (2005), and Second Circuit cases applying that decision. And it was remarkably unfair here, where the federal government specified how the State should build culverts, granted permits for their construction, and then decades later sued the State, saying that those same culverts violated treaties the federal government entered 150 years earlier.

The sweeping injunction imposed here also conflicts with this Court's holdings on the proper scope of injunctive relief against States. "[T]he injunction requires [Washington] to replace or repair all 817 culverts located in the area covered by the Treaties without regard to whether replacement of a particular culvert actually will increase the available salmon habitat." App. 37a. A federal court ordering a state to spend money on projects that will make no difference flies in the face of federalism and comity principles.

Finally, this Court's review is necessary because this case is exceptionally important. Replacing culverts will cost Washington billions of dollars, but that is only the beginning of the problem. "[P]laintiffs could use the panel's decision to demand the removal of dams and attack a host of other practices," and these concerns "extend[] far beyond the State of Washington," because the same treaty language is found in treaties with tribes in Idaho, Montana, and Oregon. App. 28a-29a. The ruling thus creates an ill-defined "environmental servitude" across the entire Pacific Northwest, intruding deeply into States' fiscal and policy decisions. The Court should grant certiorari.

OPINIONS BELOW

The amended and final Ninth Circuit decision below is reported at 853 F.3d 946 (2017). App. 58a-126a. The order denying rehearing en banc is reported at 2017 WL 2193387 (May 19, 2017). App. 1a-57a. An opinion respecting denial of rehearing en banc by Judge O'Scannlain, and joined in full by judges Kozinski, Tallman, Callahan, Bea, Ikuta, and N.R. Smith, and joined as to all but part IV by judges Bybee and M. Smith, is found at App. 17a-41a. An opinion concurring in denial of review en banc by judges W. Fletcher and Gould is found at App. 6a-17a.

The district court's summary judgment ruling is reported at *United States v. Washington*, 20 F. Supp. 3d 828 (W.D. Wash. 2007). App. 249a-72a. The district court's injunctive rulings are reported at *United States v. Washington*, 20 F. Supp. 3d 986 (W.D. Wash. 2013). App. 127a-79a, 235a-42a. The district court's order striking the state's equitable defenses is reported at *United States v. Washington*, 19 F. Supp. 3d 1317 (W.D. Wash. 2001). App. 273a-82a. The district court's supplement to memorandum and decision and its order on motions in limine are unreported. App. 180a-234a; App. 243a-48a.

JURISDICTION

The order denying rehearing en banc was entered on May 19, 2017. App. 1a. This Court has jurisdiction under 28 U.S.C. § 1254(1).

STATUTES

The treaties at issue in this case provide, in substantively identical language:

> The said tribes and bands of Indians cede, relinquish, and convey to the United States, all their right, title, and interest in and to the lands and country occupied by them.

Each treaty also provides:

> The right of taking fish, at all usual and accustomed grounds and stations, is further secured to said Indians in common with all citizens of the Territory . . . .

Treaty with the Nisqualli, Puyallup Etc. 1854 (Medicine Creek Treaty), arts. I, III, 10 Stat. 1132, 1133 (Dec. 26, 1854, ratified Mar. 3, 1855, proclaimed Apr. 10, 1855).[1]

STATEMENT OF THE CASE

A. Historical Treaty Negotiations and Salmon Runs

In 1854 and 1855, the United States negotiated eleven treaties with Indian tribes in what are now the states of Idaho, Montana, Oregon, and Washington. *See generally Seufert Bros. Co. v. United States*, 249 U.S. 194, 196-97 (1919). In the treaties, the tribes

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[1] *See also* Treaty with the Dwámish Etc. Indians (Point Elliott Treaty), arts. I, V, 12 Stat. 927, 928 (Jan. 22, 1855, ratified Mar. 8, 1859, proclaimed Apr. 11, 1859); Treaty with the S'Klallam (Point No Point Treaty), arts. I, IV, 12 Stat. 933, 934 (Jan. 26, 1855, ratified Mar. 8, 1859, proclaimed Apr. 29, 1859); Treaty with the Makah, arts. I, IV, 12 Stat. 939, 940 (Jan. 31, 1855, ratified Mar. 8, 1859, proclaimed Apr. 18, 1859); Treaty with the Yakama, arts. I, III, 12 Stat. 951, 953 (June 9, 1855, ratified Mar. 8, 1859, proclaimed Apr. 18, 1859); Treaty with the Qui-nai-elt, Etc. (Olympia Treaty), arts. I, III, 12 Stat. 971, 972 (Jan. 25, 1856, ratified Mar. 8, 1859, proclaimed Apr. 11, 1859).

ceded to the United States "all their right, title, and interest" in the lands they occupied while reserving their right to continue fishing at traditional locations:

> The right of taking fish, at all usual and accustomed grounds and stations, is further secured to said Indians in common with all citizens of the Territory . . . .

Medicine Creek Treaty, art. III, 10 Stat. at 1133.[2] At the time, there were roughly 7,500 Indians in western Washington, the area covered by the treaty claims at issue in this case. *Fishing Vessel*, 443 U.S. at 664.

Salmon are anadromous fish, meaning they hatch in fresh water rivers and streams, "migrate to the ocean where they are reared and reach mature size, and eventually complete their life cycle by returning to the fresh-water place of their origin to spawn." *Id.* at 662. "At the time the treaties were executed there was a great abundance of fish and a relative scarcity of people." *Id.* at 675. Salmon runs were "considered inexhaustible[.]" *United States v. Washington*, 157 F.3d 630, 640 (9th Cir. 1998). Thus, as the trial court found: "It was not deemed necessary to write any protection for the [salmon] into the treat[ies] because nothing in any of the parties'

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[2] Language in the other treaties is similar. *See supra* note 1; Treaty with the Walla-Walla, Etc., art. I, 12 Stat. 945, 946 (June 9, 1855, ratified Mar. 8, 1859, proclaimed Apr. 11, 1859); Treaty with the Nez Percés, art. III, 12 Stat. 957, 958 (June 11, 1855, ratified Mar. 8, 1859, proclaimed Apr. 29, 1859); Treaty with the Tribes of Middle Oregon, art. I, 12 Stat. 963, 964 (June 25, 1855, ratified Mar. 8, 1859, proclaimed Apr. 18, 1859); Treaty with the Flatheads, Etc., art. III, 12 Stat. 975, 976 (July 16, 1855, ratified Mar. 8, 1859, proclaimed Apr. 18, 1859).

experience gave them reason to believe that would be necessary." App. 269.

Unfortunately, overharvesting by non-Indians showed that salmon were, in fact, an exhaustible resource. By the early 1900's—long before the State built any highways—salmon runs in western Washington had declined precipitously. App. 70a. Scarcity led to litigation over the meaning of the treaty right.[3]

B. This Court's Decisions Interpreting the Treaty Right

The first case to reach this Court was *United States v. Winans*, 198 U.S. 371 (1905). In the 1890s, non-Indian landowners fenced off a trail to a traditional Indian fishing place on the Columbia River in Washington and erected large fish wheels, excluding the Indians from that fishing site. The United States sued to enjoin the landowners from interfering with the Indians' treaty rights. This Court held that the landowners could not exclude the Indians from traditional fishing places. *Id.* at 381. "[T]he Indians were given a right in the land—the right of crossing it to the river—the right to occupy it" for fishing purposes. *Id.*; *see also Seufert Brothers Co.*, 249 U.S. at 199 (same holding as to land in Oregon).

This Court next addressed whether the treaties preempted state fishing regulation. In *Tulee v. Washington*, 315 U.S. 681 (1942), this Court held that the Yakama Treaty preempted a state license fee as

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[3] *See generally* Fronda Woods, *Who's In Charge of Fishing?*, 106 Or. Hist. Q. 412 (2005), https://www.fws.gov/leavenworthfisheriescomplex/who_in_charge_fishing%20(1).pdf.

applied to a Yakama Indian fishing at a traditional place. The Court held that "such exaction of fees as a prerequisite to the enjoyment of fishing in the 'usual and accustomed places' cannot be reconciled with a fair construction of the treaty." *Tulee*, 315 U.S. at 685. The Court added that "the treaty leaves the state with power to impose on Indians equally with others such restrictions of a purely regulatory nature concerning the time and manner of fishing outside the reservation as are necessary for the conservation of fish[.]" *Id.* at 684.

That dictum became a holding in *Puyallup Tribe v. Department of Game of Washington*, 391 U.S. 392, 399 (1968), where the Court held that the Medicine Creek Treaty did not preempt state police power "expressed in nondiscriminatory measures for conserving fish resources." When the *Puyallup* case reached the Court again after remand, this Court held that state regulations that barred Indians from using traditional fishing nets were discriminatory, and therefore preempted, because they effectively allocated the entire steelhead catch to non-Indians. *Dep't of Game of Washington v. Puyallup Tribe*, 414 U.S. 44 (1973). The Court remanded so that the available fish could be "fairly apportioned between Indian net fishing and non-Indian sports fishing." *Id.* at 48, 49. When the *Puyallup* case reached this Court a third time, this Court upheld an allocation of "45% of the annual natural steelhead run available for taking to the treaty fishermen's net fishery." *Puyallup Tribe, Inc. v. Dep't of Game of Washington*, 433 U.S. 165, 177 (1977).

In 1970, while the *Puyallup* litigation was pending, the United States and a number of tribes initiated this case by suing the State of Washington in federal court. The United States alleged that the right of taking fish entitled the Tribes to a fair share of the salmon passing their traditional fishing places. *Fishing Vessel*, 443 U.S. at 670. The Tribes, however, contended that the treaties entitled them "to as many fish as their commercial and subsistence needs dictated." *Id.* The district court agreed with the United States and held that the treaty right, being "in common with" other people, entitles the Tribes to a fair share of available fish. *United States v. Washington*, 384 F. Supp. 312, 401 (W.D. Wash. 1974), *aff'd*, 520 F.2d 676 (9th Cir. 1975), *cert. denied*, 423 U.S. 1086 (1976). In devising an equitable remedy to implement the Tribes' right to a fair share of the harvests, the court set the tribal share at 50%. *Id.* at 343-44, 416.

After the Washington Supreme Court issued rulings conflicting with the district court's orders, this Court consolidated several cases and granted review. *See Fishing Vessel*, 443 U.S. at 669-74. This Court generally affirmed the district court's approach, holding that the right of taking fish "in common" means "[b]oth sides have a right, secured by treaty, to take a fair share of the available fish." *Id.* at 684-85. Agreeing with the United States, the Court said equal shares were "equitable," but recognized that, like any equitable remedy, the injunction could be modified for changed circumstances. For example, if in the future a tribe did not need 50% of the available fish for a "livelihood," or "moderate living," that allocation

might be unreasonable, and the State could ask for a downward adjustment. *Fishing Vessel*, 443 U.S. at 685-87.

After this Court's remand 38 years ago, the case never ended. Instead, the district court kept the case open and created a process for filing "sub-proceedings," dozens of which have since been filed, many of them intertribal disputes. *See generally United States v. Washington*, 573 F.3d 701, 704-05, 709-10 (9th Cir. 2009) (describing this process and one particular intertribal dispute). Thus, "[j]udges in the Western District of Washington have now been regulating fishing in the Puget Sound for 35 years, with the aid of a Fishery Advisory Board that the court created," and "the court has become a regulatory agency perpetually to manage fishing." *Id.* at 709.

C. Facts and Proceedings in this Case

In 2001, the federal government and 21 tribes filed a new "sub-proceeding" in *United States v. Washington*. They alleged that the treaties promised the Tribes they would always be able to earn a "moderate living" from fishing and that culverts under state roads that impede fish passage violate this promise. App. 250a; ER 1002-15. They sought declaratory and injunctive relief against the State. ER 1002-15.

1. Culverts in Washington

Culverts are engineered structures that allow streams to pass under roads, and they can range from simple pipes to "stream-simulation" designs that mimic natural stream conditions. App. 77a, 209a-13a, 221a-26a (examples of culverts). Culverts are often

necessary in Washington because of the abundance of streams, and their costs vary widely depending on culvert type, stream conditions, and highway size and location.

Washington began building culverts in meaningful numbers when it accepted Congress's invitation to participate in the federal-aid highway program roughly a century ago. *See* Act of July 11, 1916, ch. 241, 39 Stat. 355; 1917 Wash. Sess. Laws, page no. 260 (codified as amended Wash. Rev. Code § 47.04.050). Congress created a partnership where the federal government provides partial funding for highways and states construct them to federal design standards under federal oversight. *E.g.*, Pub. L. No. 85-767, § 106, 72 Stat. 885, 892 (1958) (codified as amended at 23 U.S.C. § 106); Act of July 11, 1916, ch. 241, § 6, 39 Stat. at 357-58. *See generally* David R. Levin, *Federal Aspects of the Interstate Highway Program*, 38 Neb. L. Rev. 377 (1959); Richard F. Weingraff, Federal Highway Administration, *100th Anniversary–An Evolving Partnership*, 78 Public Roads No. 4 (2014). Today, all Washington state highways are federal-aid highways as described in 23 U.S.C. § 103. *See* Wash. Rev. Code § 47.17.001.

Federal law has long treated culverts as integral parts of the highways covered by federal-aid laws. Act of July 11, 1916, ch. 241, § 2, 39 Stat. at 356 ("culverts shall be deemed parts of the respective roads covered by the provisions of this Act"). The federal government specified designs for highway culverts and distributed culvert engineering guidance to state highway departments. Levin, 38 Neb. L. Rev. at 393-96; ER 664. The Army Corps of Engineers also issued nationwide permits specifying conditions

under which road culverts are approved under Section 404 of the Clean Water Act without further processing. *See* 33 C.F.R. §§ 323.4, 323.4-3(a)(3) (1978). The Corps issued individual permits for many other culverts under 33 C.F.R. § 323.4-4 (1978).

Washington relied on the federal design standards, guidance, and permit conditions in building its culverts. ER 664, 989-90, 1082. Until the mid-1990s, virtually all state highway culverts in Washington were built to federally-supplied design standards. ER 665. At no time did the federal government notify the State that it would be violating treaty rights by using federal culvert designs or complying with federal permits. ER 665; App. 96a-97a.

By 1968, Washington had completed nearly all of its approximately 7000-mile state highway system. ER 312. But the State has continued to modify, expand, and update highways, and builds culverts in doing so.

In the 1990s, state scientists concluded that federal culvert designs were often inadequate to pass fish because they increased water velocity or turbidity, could become blocked by debris, or for other reasons. The State began identifying fish-barrier culverts under state highways and replacing them. App. 141a, 147a, 153a, 195a; ER 837. Washington became a national leader in developing new culvert designs that better pass fish and received awards from the federal government for its leadership in addressing fish passage. App. 137a, 144a; ER 117, 675-76, 840, 879-83.

Since 1991, Washington has spent over $135 million to remove barrier culverts in the state highway system.[4] This is in addition to the cost of culverts replaced as part of larger highway projects or in other state roads. App. 149a-52a, 169a. The State has also spent hundreds of millions of dollars on other salmon recovery efforts. *See* App. 155a-56a; ER 148-49, 659.

State-owned culverts are a small fraction of the barrier culverts in Washington. App. 203a. Federal, tribal, and local governments, as well as private landowners, have also built roads that include barrier culverts. Such culverts are ubiquitous in Washington, and the total number is unknown. ER 593, 1030, 1045. There is no exhaustive inventory of non-state culverts, but non-state barrier culverts outnumber state barrier culverts by at least 3 to 1, and in some watersheds by as much as 36 to 1. App 203a; ER 196-209, 407-555. Because there are so many non-state culverts, the State has focused its highway culvert replacement efforts on streams with no other barriers, where replacing the state barrier may actually open access to habitat. ER 630-31, 671.

2. District Court Proceedings

Despite its role in designing and permitting culverts under Washington highways, in 2001 the federal government joined 21 tribes in initiating this "sub-proceeding," claiming that the State's culverts

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[4] Wash. State Dep't of Transp., *WSDOT Fish Passage Performance Report*, Table 2 (June 30, 2017), http://www.wsdot.wa.gov/publications/fulltext/projects/FishPassage/2017FishPassageAnnualReport.pdf.

violate the federal treaties signed in 1854-1855. The State denied that the treaties imposed the alleged duty and asserted that the United States and the tribes were barred by equitable principles from seeking relief related to culverts designed to federal standards or installed under federal permits. ER 989-90, 995-96. The trial court granted the United States' motion to strike those defenses, ruling that the State could not use them to defeat the United States' action to enforce tribal treaty rights. App. 274a-75a.

In 2006, the parties cross-moved for summary judgment on whether the treaty imposed the duty alleged. The trial court granted the tribes' motion and denied the State's. App. 249a-72a. The court found that "fish harvests have been substantially diminished" since 1985, and drew a "logical inference that a significant portion of this diminishment is due to the blocked culverts[.]" App. 254a, 263a. The court acknowledged that nothing in the treaties' text prohibited state actions that incidentally impacted salmon runs: "[i]t was not deemed necessary to write any protection for the resource into the treaty because nothing in any of the parties' experience gave them reason to believe that would be necessary." App. 269a. But the court concluded that statements made by the United States' treaty negotiators at some of the 1854-1855 treaty councils "carried the implied promise that neither the negotiators nor their successors would take actions that would significantly degrade the resource," and found that "the building of stream-blocking culverts" is a "resource-degrading activity." App. 270a. The court declared:

> [T]he right of taking fish, secured to the Tribes in the Stevens Treaties, imposes a duty upon the State to refrain from building or operating culverts under State-maintained roads that hinder fish passage and thereby diminish the number of fish that would otherwise be available for Tribal harvest. The Court further declares that the State of Washington currently owns and operates culverts that violate this duty.

App. 271a.

The court held a trial on the proper remedy in 2009. App. 128a. The court granted the State's motion in limine to exclude as "too speculative" the tribes' estimates of how many salmon were "lost" because of state-owned culverts. App. 245a-47a. The court also directed the parties to submit proposed Findings of Fact and Conclusions of Law. The State argued that the plaintiffs had not demonstrated entitlement to an injunction, in part because there was no evidence of any connection between state culverts and the amount of salmon available to any particular tribe's fisheries, or any evidence that an injunction would increase any tribe's salmon catch. The State asked the court to let the state's culvert-removal program remain in place as part of a multi-faceted regional salmon recovery strategy.

In 2013, the court adopted without change an injunction submitted by the United States and the Tribes, ordering the State to replace any state-owned barrier culvert that "has 200 lineal meters or more of salmon habitat upstream to the first *natural* passage barrier," regardless of any man-made barriers

surrounding the state culvert. App. 237a (emphasis added). Thus, the State must replace its culverts even if non-state barriers upstream and/or downstream from the state culvert prevent salmon from reaching it. App. 37a.

3. Ninth Circuit Proceedings

A panel of the Ninth Circuit affirmed. App. 58a-126a. The panel found a treaty right to demand culvert removal based not on the treaty language itself, but rather on statements made by Isaac Stevens, the United States' lead treaty negotiator, to the effect that he wanted the treaties to secure the Tribes' access to food forever. App. 91a. Based on these statements, the panel found a promise that the federal government would ensure "that there would be fish sufficient to sustain" the Tribes. App. 92a. The panel also said that even if Stevens had not made these statements, it would simply "infer a promise that the number of fish would always be sufficient to provide a 'moderate living' to the Tribes." App. 94a.

Finding that "[s]almon now available for harvest are not sufficient to provide a 'moderate living' to the Tribes," and that "several hundred thousand additional mature salmon would be produced every year" if the State's blocking culverts were replaced—findings not made by the district court—the panel concluded that "Washington has violated, and is continuing to violate, its obligation to the Tribes under the Treaties" by "act[ing] affirmatively to build and maintain barrier culverts under its roads." App. 95a-96a.

The panel also affirmed the district court's ruling that equitable defenses were unavailable, holding that this Court's decision in *City of Sherrill* was inapplicable. App. 96a-99a.

Finally, the panel affirmed the district court's injunction, holding that it was not overbroad or inequitable because the State recognized before the case was filed that replacing some culverts was a good idea. App. 104a-23a. The panel added that "an injunction enforcing Indian treaty rights should not be viewed in the same light" as an injunction to enforce other federal laws or constitutional rights, and may broadly intrude into state affairs. App. 123a-25a.

4. En Banc Proceedings

The State petitioned for rehearing en banc, which the Ninth Circuit denied. App. 6a. Judge O'Scannlain, joined by eight judges as to all but part IV, and by six judges as to part IV, filed an opinion respecting the denial of rehearing en banc. App. 17a-41a.

Describing the panel opinion as a "runaway decision" that had "discovered a heretofore unknown duty" in the treaties, the nine dissenting judges urged that the panel opinion made "four critical errors." App. 17a-19a.

First, the panel misread *Fishing Vessel* as holding that the treaties guarantee the Tribes enough salmon for a "moderate living." *Fishing Vessel* held only that the treaties secure to the Tribes a fair share of available fish, up to 50%, not a guaranteed quantity. App. 21a-26a.

Second, the dissenters noted the absence of evidence connecting state culverts with tribal fisheries. App. 27a-29a. They pointed out that the panel's "overly broad reasoning" turns any activity that affects fish habitat into a treaty violation, and turns the federal courts into environmental policymakers. App. 28a-32a.

Third, in Part IV, the dissenting judges urged that the panel opinion defied this Court's decision in *City of Sherrill*, and suggested that an equitable doctrine such as laches could bar relief because of the United States' involvement in designing the culverts and its long acquiescence in their existence. App. 32a-36a.

Finally, the dissent explained that the injunction was overbroad because it requires the State to spend large sums on culvert removals that will have no impact on salmon. App. 36a-41a.

REASONS THE PETITION SHOULD BE GRANTED

A. The Ninth Circuit's Decision Conflicts with this Court's Decisions About How to Interpret these Treaties and How to Interpret Treaties Generally

Petitions for certiorari often claim that a lower court "has decided an important federal question in a way that conflicts with relevant decisions of this Court." Rule 10(c). But this case presents a uniquely troubling example of such a conflict: the panel's decision interprets a federal treaty in a way that rejects this Court's prior reading of the exact same language in this very case. The panel opinion also

conflicts more generally with this Court's holdings on treaty interpretation. Both conflicts warrant certiorari.

1. The Ninth Circuit's Decision Conflicts with This Court's Decision in *Fishing Vessel*

The Ninth Circuit held that these treaties "promise that the number of fish would always be sufficient to provide a 'moderate living' to the Tribes." App. 94a. The panel claimed that *Fishing Vessel* supports this conclusion. App. 92a; *see* App. 7a-9a. In truth, *Fishing Vessel* rejected this unworkable standard. This Court should grant certiorari to resolve this conflict.

In *Fishing Vessel*, the parties advanced competing positions. The Tribes "contended that the treaties had reserved a pre-existing right to as many fish as their commercial and subsistence needs dictated." *Fishing Vessel*, 443 U.S. at 670. "The United States argued that the Indians were entitled either to a 50% share of the 'harvestable' fish that . . . passed through their fishing places, or to their needs, *whichever was less*." *Id.* (emphasis added) (footnote omitted). The State argued for a lesser tribal share. *Id.*

This Court "agree[d] with the Government," *id.* at 685, holding that the treaties "secure the Indians' right to take a share of each run of fish that passes through tribal fishing areas," *id.* at 679. The Court affirmed the district court's equitable allocation setting that share at 50%, but held that the share could be reduced in the future if a lesser share were sufficient to "provide the Indians with a livelihood—

that is to say, a moderate living." *Fishing Vessel*, 443 U.S. at 686. Thus, "the 50% figure imposes a maximum but not a minimum allocation." *Id.*

Fishing Vessel thus made clear that the "moderate living" standard is an equitable limit the State could invoke in the future as a ceiling on the tribal share of the catch, not a floor on fish harvests that the treaties always guaranteed. Indeed, the Ninth Circuit repeatedly described *Fishing Vessel* this way, until this panel's opinion. *See, e.g.*, *United States v. Washington*, 759 F.2d 1353, 1359 (9th Cir. 1985) (en banc) ("*Fishing Vessel* did not hold that the Tribes were entitled to any particular minimum allocation of fish. Instead, *Fishing Vessel* mandates an allocation of 50 percent of the fish to the Indians, subject to downward revision if moderate living needs can be met with less."); *Skokomish Indian Tribe v. United States*, 410 F.3d 506, 513 (9th Cir. 2005) (en banc) (describing *Fishing Vessel* as holding that the tribes were "entitled to an equal measure of the harvestable portion of each run . . . adjusted downward if tribal needs could be satisfied by a lesser amount"), *cert. denied*, 546 U.S. 1090 (2006); *Midwater Trawlers Co-operative v. Dep't of Commerce*, 282 F.3d 710, 719 (9th Cir. 2002) (same); *see also* App. 21a-25a.

Fishing Vessel is therefore irreconcilable with the panel's opinion. If, as the panel held, the treaties "promise that the number of fish would always be sufficient to provide a 'moderate living' to the Tribes," App. 94a, this Court would have had to accept the Tribes' position in *Fishing Vessel* that they were entitled to as many fish as their "needs dictated." *Fishing Vessel*, 443 U.S. at 670. Instead, the Court

held that the Tribes were entitled to at most one-half of each run, even if that amount was less than their "needs dictated." *Fishing Vessel*, 443 U.S. at 686 ("[T]he 50% figure imposes a maximum but not a minimum allocation."). It cannot be the case that the treaties promised the Tribes both a "moderate living" from fishing and a "maximum" of 50% of each run; one opinion has to give, and in our system, it is the lower courts that are supposed to follow this Court's holdings. App. 24a ("[T]he panel opinion turns *Fishing Vessel* on its head.").

The panel's opinion is not only irreconcilable with precedent, it is also unworkable. The panel's opinion would mean that the State's ability to comply with the treaty would depend on a range of factors over which the State has no control, from natural fluctuations in salmon runs to salmon prices to what other income tribal members earn. It also leaves fundamental questions about the treaties' meaning unanswered, including whether the new "moderate living" guarantee grows with the Indian population in western Washington (which was roughly 7,500 at treaty time but is much larger today) and whether it grows as overall standards of living change.

The Court should grant certiorari to resolve the important conflict between its own reading of these treaties in *Fishing Vessel* and the panel's contrary reading. Resolving that conflict will determine whether the panel's basis for compelling billions in spending on culvert repairs is justified. Addressing this conflict would also allow the Court to examine if there is any treaty-based right to compel the State to restore salmon habitat to increase salmon returns. While the State does not believe the treaties contain

any such right (nor that it is necessary to read one in, given the State's own strong incentives to preserve salmon runs and the federal government's vast powers to adopt laws regulating and funding habitat protection and restoration), the State proposed to the Ninth Circuit a number of narrower possible rules it could consider instead of the unsupportable "moderate living" standard. *See, e.g.*, Dkt. 25 at 34-35, Dkt. 118 at 10-11; *see also, e.g.*, *United States v. Washington*, 694 F.2d 1374, 1377 n.7 (9th Cir. 1982) ("environmental degradation that has a discriminatory effect on Indians is barred under *Puyallup I* if authorized or caused by the State"), *vacated*, 759 F.2d 1353 (9th Cir. 1985). Granting certiorari would allow this Court to consider these alternatives itself while making clear that the extreme rule adopted by the panel is irreconcilable with this Court's precedent.

2. The Panel's Holding Conflicts with this Court's Holdings on Treaty Interpretation

Even setting aside the direct conflict with *Fishing Vessel*, the panel's opinion conflicts with this Court's holdings about treaty interpretation. By inferring a massive commitment nowhere mentioned in the treaties, never contemplated by the parties, and never recognized by the parties during the decades after the treaties, the panel ignored this Court's direction.

This Court has held that Indian treaties "cannot be re-written or expanded beyond their clear terms to remedy a claimed injustice or to achieve the asserted understanding of the parties." *Choctaw*

Nation of Indians v. United States, 318 U.S. 423, 432 (1943). On this basis, this Court has repeatedly rejected treaty interpretations never agreed to by the parties. *See, e.g.*, *Oklahoma Tax Comm'n v. Chickasaw Nation*, 515 U.S. 450, 466-67 (1995); *Oregon Dep't of Fish & Wildlife v. Klamath Indian Tribe*, 473 U.S. 753, 769-74 (1985).

Here, in declaring this massive new right and obligation, the panel never explained how the treaty "right of taking fish . . . in common with all citizens," could equate to a guarantee that "the number of fish would always be sufficient to provide a 'moderate living' to the Tribes." And the panel entirely ignored the treaty agreement that the Tribes would "cede, relinquish, and convey to the United States, all their right, title, and interest in and to the lands and country occupied by them." *E.g.*, Medicine Creek Treaty, art. I, 10 Stat. at 1132. The panel made no attempt to reconcile this language with the import of its holding: that the Tribes silently retained a right to control land use decisions and State policies in the ceded territory that could affect salmon.

The panel instead looked to reported statements of treaty negotiators and the alleged implications of those statements. It is true that when construing ambiguous treaty language, courts can look "to the larger context that frames the Treaty, including 'the history of the treaty, the negotiations, and the practical construction adopted by the parties.'" *Minnesota v. Mille Lacs Band of Chippewa Indians*, 526 U.S. 172, 196 (1999). But even looking to those materials here cannot justify the panel's conclusion. As the dissent from the denial of rehearing pointed out, this Court considered the exact same

statements by negotiators in *Fishing Vessel* but still rejected the Tribes' position that the treaties promised as many fish as their "needs dictated." *Fishing Vessel*, 443 U.S. at 670. App. 25a. And the district court here reaffirmed that the parties did not intend "to write any protection for the resource into the treaty because nothing in any of the parties' experience gave them reason to believe that would be necessary." App. 269a.

The "practical construction adopted by the parties" also contradicts the panel's holding that State culverts violate the treaties if they incidentally restrict fish passage. *Mille Lacs Band*, 526 U.S. at 196. The federal government funded and provided designs for these culverts, until the State itself improved the designs. The Tribes agreed in the treaties that roads could be built. *E.g.*, Medicine Creek Treaty, art. II, 10 Stat. at 1133. And for over a century after signing the treaties, the federal government built dams that restricted or entirely blocked fish passage. *See, e.g.*, *Idaho ex rel. Evans v. Oregon*, 462 U.S. 1017, 1020-21 & nn. 2-5 (1983). Clearly, the federal government did not understand the treaties to prohibit such projects.

Finally, the panel's alternative theory for inferring this treaty right, based on cases finding implied water rights in treaties, is also inconsistent with this Court's precedent. *See* App. 92a-94a (citing *Winters v. United States*, 207 U.S. 564 (1908)). This Court considered these same cases in *Fishing Vessel*, 443 U.S. at 685-86, but still declined to adopt the Tribes' position. More broadly, these cases rely on the idea that when the United States created Indian reservations, it must have intended to reserve water sufficient to make the reservations viable. *See, e.g.*,

Cappaert v. United States, 426 U.S. 128, 139 (1976). Here, there is no need or basis to infer such a right because: (1) the State already has strong incentives to preserve salmon runs because it shares the runs equally with the Tribes; and (2) the federal government has broad power to protect salmon without adding a new right to this treaty, whether through laws, regulations, or funding decisions. As the dissenting judges observed, if lower courts "read these cases broadly to mean that we *can and should* infer a whole host of rights not contained in the four corners of tribal treaties, the possibilities are endless" for creating new rights. App. 26a.

In short, the panel's holding that the treaties implicitly guaranteed a moderate living from fishing was an effort "to remedy a claimed injustice," *Choctaw Nation*, 318 U.S. at 432, not a plausible interpretation of the treaty language or the parties' intent. This Court should grant certiorari to rectify the conflict between the Ninth Circuit's approach and this Court's directions on treaty interpretation.

B. The Ninth Circuit's Decision Conflicts with Decisions of this Court and the Second Circuit on the Availability of Equitable Defenses to Treaty Claims

The Ninth Circuit opinion also warrants review because it conflicts with decisions of this Court and the Second Circuit concerning equitable defenses.

In *City of Sherrill v. Oneida Indian Nation of New York*, 544 U.S. 197 (2005), a tribe purchased land within the boundaries of its historic reservation that had been held by non-Indians (and thus subject to state and local taxation) for many decades. This Court

held that equitable doctrines such as laches defeated the tribe's attempt to enjoin the city from imposing property taxes on the newly reacquired land. *See also Nebraska v. Parker*, 136 S. Ct. 1072, 1082 (2016) (agreeing with intervenor United States that disputed lands were within tribe's treaty reservation, but "express[ing] no view about whether equitable considerations of laches and acquiescence may curtail the Tribe's power to tax [non-Indian businesses]").

The Second Circuit applied *City of Sherrill* to hold that laches barred all remedies for disruptive treaty-based Indian land claims brought by tribes and by the United States on their behalf. *Oneida Indian Nation of New York v. Cty. of Oneida*, 617 F.3d 114 (2d Cir. 2010), *cert. denied*, 565 U.S. 970 (2011); *Cayuga Indian Nation of New York v. Pataki*, 413 F.3d 266 (2d Cir. 2005), *cert. denied*, 547 U.S. 1128 (2006); *see Stockbridge-Munsee Cmty. v. New York*, 756 F.3d 163, 165 (2d Cir. 2014) ("it is now well-established that Indian land claims asserted generations after an alleged dispossession are inherently disruptive of state and local governance and the settled expectations of current landowners, and are subject to dismissal on the basis of laches, acquiescence, and impossibility"), *cert. denied*, 135 S. Ct. 1492 (2015).

The Ninth Circuit decision conflicts with *City of Sherrill* and the Second Circuit decisions applying it. The Ninth Circuit brushed aside *Sherrill* because *Sherrill* involved different facts—tribal rights within an "abandoned reservation." App. 99a. But, as the dissenting judges recognized, "*Sherrill* made clear that laches can apply to Indian treaty rights, [so] it should not matter whether a party is seeking to apply laches in the context of sovereignty over land or the

enforcement of rights appurtenant to land (the ability to fish)." App. 35a. Having rejected *Sherrill* with a meaningless distinction, the panel then applied old Ninth Circuit precedent to hold that equitable defenses cannot be used to defeat a suit by the United States to enforce Indian treaty rights. App. 97a-98a. But the Second Circuit has held exactly the opposite under *Sherrill*. *Oneida Indian Nation of New York*, 617 F.3d at 129; *Cayuga Indian Nation of New York*, 413 F.3d at 278-79; App. 34a.

The Ninth Circuit's refusal to consider equitable defenses merits review. The State has compelling equitable defenses available, if they could only be considered. As detailed above, the federal government funded, authorized, provided designs for, and/or granted permits for the very culverts it now says are treaty violations. ER 664, 1082. Before supplying the funds, design standards, and permits, the federal government was required to consider the Tribes' treaty fishing rights. *See Nance v. Envtl. Prot. Agency*, 645 F.2d 701, 710, 711 (9th Cir. 1981) ("It is fairly clear that any Federal government action is subject to the United States' fiduciary responsibilities toward the Indian tribes."), *cert. denied*, 454 U.S. 1081 (1981). As the dissent noted: "Given the United States' involvement in designing the culverts and its long acquiescence in their existence, one might suppose that an equitable doctrine . . . would bar suit by the United States." App. 33a. And if equitable doctrines bar suit by the United States, the Tribes could not separately sue the State

because of the State's sovereign immunity. App. 35a (citing *Idaho v. Coeur d'Alene Tribe of Idaho*, 521 U.S. 261, 268 (1997)). This Court should grant certiorari to address this issue.

C. The Ninth Circuit's Decision Conflicts with Prior Decisions of this Court about the Proper Scope of Injunctive Relief

Even if the Ninth Circuit's approach to treaty interpretation and equitable defenses were consistent with this Court's holdings, the injunction it affirmed is not. This Court should grant certiorari to address the conflict between its precedent about the proper scope of injunctive relief (especially against sovereign States) and the breathtakingly broad injunction the Ninth Circuit affirmed here.

This Court has held that injunctions are extraordinary remedies, should be narrowly tailored to redress only conduct that violates federal law, and should be issued only after careful consideration of their public impacts. *See, e.g.*, *Monsanto Co. v. Geertson Seed Farms*, 561 U.S. 139, 165 (2010); *Winters v. Nat. Res. Def. Council, Inc.*, 555 U.S. 7, 24 (2008). Moreover, when a plaintiff seeks a federal injunction against a state, "appropriate consideration must be given to principles of federalism." *Rizzo v. Goode*, 423 U.S. 362, 379 (1976). "Federalism concerns are heightened when," as here, "a federal court decree has the effect of dictating state or local budget priorities." *Horne v. Flores*, 557 U.S. 433, 448 (2009). And when there is a "patently inadequate basis for a conclusion of systemwide violation," it is error to impose "systemwide relief." *Lewis v. Casey*, 518 U.S. 343, 359 (1996).

At least three aspects of the Ninth Circuit opinion conflict with these principles.

First, the panel ordered the State to replace culverts even when doing so will make no difference to salmon. The panel ordered the State, by 2030, to replace any state-owned highway barrier culvert that "has 200 lineal meters or more of salmon habitat upstream to the first *natural* passage barrier," regardless of any man-made barriers surrounding the state culvert. App. 104a (emphasis added), 237a. Thus, the State must replace its culverts even if other man-made barriers upstream and/or downstream prevent salmon from reaching the state culvert. App. 37a. In other words: "[T]he injunction requires [Washington] to replace or repair all 817 culverts located in the area covered by the Treaties without regard to whether replacement of a particular culvert actually will increase the available salmon habitat." App. 37a. This flaw permeates the injunction because: (1) roughly 90% of state barrier culverts are upstream or downstream of other barriers, ER 629; (2) state-owned culverts are less than 25% of known barrier culverts, ER 1045; and (3) in many watersheds, non-state barrier culverts drastically exceed state-owned culverts, by up to 36 to 1. ER 196-211, 407-555; *see* App. 203a.

Ordering the State to replace culverts that will make no difference flies in the face of basic principles of federalism and federal court jurisdiction. Injunctive relief is supposed to address violations of federal law,

not a court's policy preferences, yet the Ninth Circuit never explained how a State culvert could possibly violate the treaties if no salmon can reach it in the first place. And it is untenable for the Ninth Circuit to order the State to spend money replacing such culverts when the expense will come at the cost of state funding for other priorities, potentially including salmon restoration efforts that could actually have an impact. *See, e.g.*, *Horne*, 557 U.S. at 448 ("When a federal court orders that money be appropriated for one program, the effect is often to take funds away from other important programs.").

Second, the injunction requires replacement of state culverts throughout western Washington without any evidence that any particular culvert or group of culverts has reduced the number of fish that would otherwise reach tribal fishing areas. The panel ignored this lack of evidence, instead relying on the generalized claim that "hundreds of thousands of adult salmon will be produced by opening up the salmon habitat that is currently blocked by the State's barrier culverts." App. 115a. But the evidence does not support that claim.

As the panel acknowledged, salmon numbers in Washington first declined dramatically in the early 1900's (because of overharvesting), long before the State began building highways or culverts. App. 70a; ER 970-71. And there is no clear relationship between the number of state highway culverts and salmon

populations. Washington's state highway system has been essentially the same size since the 1960's, *see* ER 312, but salmon harvests in western Washington have fluctuated enormously since then, reaching a high of nearly 11 million fish in 1985, dropping to a low of under 900,000 fish by 1999, and then rebounding to over 4 million fish by 2003. *See* ER 267; App. 183a-88a (tribal harvests).

In nonetheless concluding that "hundreds of thousands of adult salmon will be produced by" replacing "the State's barrier culverts," App. 115a, the panel relied primarily on a 1997 report to the Washington Legislature, App. 108a-09a. But the district court—the factfinder—rejected the use of that report to predict "lost" salmon as unreliable and never cited it in its findings of fact. App. 245a-47a, 130a-73a. The district court noted that in suggesting how many salmon could be produced by removing barrier culverts, the report ignored all other factors, "such as the presence of other, non-[state] culverts, other habitat modifications, and many other environmental factors." App. 247a. Thus, the Ninth Circuit relied on exactly the sort of conjecture that provides a "patently inadequate basis for a conclusion of systemwide violation and imposition of systemwide relief." *Lewis*, 518 U.S. at 359.

Finally, the injunction ignores the stark inequity of the federal government using a treaty it signed to force the State (a nonparty) to bear the entire cost of replacing culverts that the federal government designed and permitted. "[W]hen a district court" considers a request for injunction, its "function is 'to do equity and to mould each decree to

the necessities of the particular case.'" *Monsanto Co.*, 561 U.S. at 174 (quoting *Hecht Co. v. Bowles*, 321 U.S. 321, 329 (1944)). That imperative should have carried extra weight here given that the defendant is a State. *Rizzo*, 423 U.S. at 379. And there are strong equities on the State's side, including the federal role in designing and permitting these culverts, the State's own recognition of and efforts to address (before any federal intervention) the potential problems federal culvert designs could pose for salmon, and that the State has for decades "spent millions of dollars on programs specifically designed to preserve, to protect, and to enhance the salmon population." App. 28a n.8. Unfortunately, rather than recognizing these equitable factors on the State's side, the panel made this case an example of how "no good deed goes unpunished." *Winters*, 555 U.S. at 31.

In sum, this Court's directives should have counseled the panel to limit any injunction to the narrowest needed, to carefully avoid imposing unnecessary costs on the State, and to consider the equities in fashioning relief. The panel departed from all of these core principles, and this Court should grant certiorari to direct the Ninth Circuit to, at the very least, bring the scope of the injunction in line with this Court's precedent.

D. This Case is Exceptionally Important

While much about this case is hotly contested, its importance is not. Even setting aside the immense costs the decision will impose on the State for replacing culverts (many of which will make no difference), the decision would warrant this Court's review.

This case began in 1970, and the panel's decision ensures that it will never end. As the nine judges objecting to the denial of rehearing pointed out: "The panel opinion fails to articulate a limiting legal principle that will prevent its holding from being used to attack a variety of development, construction, and farming practices, not just in Washington but throughout the Pacific Northwest." App. 19a. The panel essentially reasoned that: (1) tribes have a right to a moderate living from fishing; (2) they currently are not earning a moderate living from fishing; (3) State culverts play some role in reducing the number of fish available; therefore (4) State culverts violate the treaties. App. 27a-28a. But as the dissent pointed out, the same reasoning could be used to demand any number of changes in longstanding governmental and private practices, from "the removal of dams" to altering farming practices to the elimination of century-old water rights. App. 28a. Tribal advocates agree, noting that: "[T]he tribes have established a winning strategy . . . pick one of the myriad activities that degrade salmon habitat, connect the degradation to the depressed salmon populations . . . and assert that diminished salmon numbers prohibit the tribal harvest from providing tribal members a 'moderate living.'" Michael C. Blumm & Jane G. Steadman, *Indian Treaty Fishing Rights and Habitat Protection: The* Martinez *Decision Supplies a Resounding Judicial Reaffirmation*, 49 Nat. Resources J. 653, 700-01 (Summer 2009); Mason D. Morisset & Carly A. Summers, *Clear Passage: The Culvert Case Decision as a Foundation for Habitat Protection and Preservation*, Seattle J. Envtl. L. 29, 54 (Spring 2009), law.seattleu.edu/Documents/bellweth

er/2009spring/MorissetSummers.pdf (describing the import of the district court's rulings as being that "any factor that is 'a cause' of [salmonid] diminishment may be subject to injunctive relief"). Moreover, "the future reach of this decision extends far beyond the State of Washington," as "the same fishing rights are reserved to tribes in Idaho, Montana, and Oregon." App. 29a.

In short, there is near universal agreement that "[t]he panel opinion's reasoning . . . is incredibly broad, and if left unchecked, could significantly affect natural resource management throughout the Pacific Northwest[.]" App. 41a. *See also* Michael C. Blumm, *Treaty Fishing Rights and the Environment; Affirming the Right to Habitat Protection and Restoration*, 92 Wash. L. Rev. 1, 5 (Mar. 2017) (counsel for one of tribes' amici noting that "the decision's implications beyond Washington and beyond state-owned road culverts portend significant future changes in land and water-use management in the Northwest"). Whether one thinks that massive change in law is good or bad, it should at least be addressed by this Court.

CONCLUSION

The panel opinion creates an expansive new treaty right contrary to this Court's precedent, ignores this Court's holdings about equitable defenses and

injunctive relief, and imposes an unworkable rule that provides no clear standard to guide Washington (or other States covered by these treaties) and that virtually guarantees that this case will never end. The Court should grant certiorari.

RESPECTFULLY SUBMITTED.

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August 17, 2017

APPENDIX

Order 1a
No. 13-35474 (9th Cir. May 19, 2017)
(Docket No. 140-1)

Order And Amended Opinion 58a
No. 13-35474 (9th Cir. June 27, 2016,
amended Mar. 2, 2017)
(Docket No. 139)

Memorandum And Decision..... 127a
No. CV 70-9213 (W.D. Wash. Mar. 29, 2013)
Subproceeding 01-01
(Document 752)

Supplement To Memorandum And Decision 180a
No. CV 9213 (W.D. Wash. Apr. 1, 2013)
Subproceeding 01-01
(Document 755)

Permanent Injunction Regarding
Culvert Correction 235a
No. C70-9213 (W.D. Wash. Mar. 29, 2013)
Subproceeding 01-01
(Document 753)

Order On Motions In Limine 243a
No. CV 9213RSM (W.D. Wash. Oct. 8, 2009)
Subproceeding 01-01
(Document 607)

Order On Cross-Motions For
Summary Judgment 249a
No. CV 9213RSM (W.D. Wash. Aug. 22, 2007)
Subproceeding 01-01
(Document 388)

Order Granting United States' And
Denying Washington's Motions
For Judgment 273a
No. C70-9213 (W.D. Wash. dated Sept. 5,
2001, filed Sept. 6, 2001)
Subproceeding 01-1
(Document 85)

FOR PUBLICATION
UNITED STATES COURT OF APPEALS FOR THE NINTH CIRCUIT

UNITED STATES OF AMERICA; SUQUAMISH INDIAN TRIBE; SAUK-SUIATTLE TRIBE; STILLAGUAMISH TRIBE; HOH TRIBE; JAMESTOWN S'KLALLAM TRIBE; LOWER ELWHA BAN[D] OF KLALLAMS; PORT GAMBLE BAND CLALLAM; NISQUALLY INDIAN TRIBE; NOOKSACK INDIAN TRIBE; SKOKOMISH INDIAN TRIBE; SQUAXIN ISLAND TRIBE; UPPER SKAGIT INDIAN TRIBE; TULALIP TRIBES; LUMMI INDIAN NATION; QUINAULT INDIAN NATION; PUYALLUP TRIBE; CONFEDERATED TRIBES AND BANDS OF THE YAKAMA INDIAN NATION; QUILEUTE INDIAN TRIBE; MAKAH INDIAN TRIBE; SWINOMISH INDIAN TRIBAL COMMUNITY; MUCKLESHOOT INDIAN TRIBE, *Plaintiffs-Appellees,* v. STATE OF WASHINGTON, *Defendant-Appellant.*	No. 13-35474 D.C. Nos. 2:01-sp-00001-RSM 2:70-cv-09213-RSM ORDER

Filed May 19, 2017

Before: William A. Fletcher and Ronald M. Gould, Circuit Judges, and David A. Ezra,* District Judge.

Order;

Concurrence by Judge W. Fletcher; Opinion Respecting Denial by Judge O'Scannlain;

Statement by Judge Hurwitz

SUMMARY**

Tribal Fishing Rights

The panel denied a petition for a panel rehearing and denied a petition for rehearing en banc on behalf of the court in an action in which the panel affirmed the district court's injunction directing the State of Washington to correct culverts, which allow streams to flow underneath roads, because they violated, and continued to violate, the Stevens Treaties, which were entered in 1854-55 between Indian tribes in the Pacific Northwest and the Governor of Washington Territory.

Concurring in the denial of rehearing en banc, Judges W. Fletcher and Gould stated that the district court properly found that Washington State violated the Treaties by acting affirmatively to build state-owned roads, and to build and maintain salmon-blocking culverts under those roads. The

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* The Honorable David A. Ezra, United States District Judge for the District of Hawaii, sitting by designation.

**This summary constitutes no part of the opinion of the court. It has been prepared by court staff for the convenience of the reader.

Judges stated that there is ample evidence in the record that remediation of the State's barrier culverts will have a substantial beneficial effect on salmon populations, resulting in more harvestable salmon for the Tribes. As an incidental result, there will also be more harvestable salmon for non-Indians. The Judges noted that the United States requested an injunction requiring remediation of all of the State's barrier culverts within five years. The district court crafted a careful, nuanced injunction, giving the United States much less than it requested. The Judges stated that the district court properly found a violation of the Treaties by the State, and that it acted within its discretion in formulating its remedial injunction.

In an opinion respecting the denial of rehearing en banc, Judge O'Scannlain, joined by Judges Kozinski, Tallman, Callahan, Bea, Ikuta and N.R. Smith, and joined by Judges Bybee and M. Smith as to all but Part IV, stated that the panel opinion's reasoning ignored the Supreme Court's holding in *Washington v. Washington State Commercial Passenger Fishing Vessel Association*, 443 U.S. 658 (1979), and this Circuit's cases, was incredibly broad, and if left unchecked, could significantly affect natural resource management throughout the Pacific Northwest, inviting judges to become environmental regulators. Judge O'Scannlain stated that by refusing to consider the doctrine of laches, the panel opinion further disregarded the Supreme Court's decision in *City of Sherrill v. Oneida Indian Nation of New York*, 544 U.S. 197 (2005), relying instead on outdated and impliedly overruled precedent. Finally, Judge O'Scannlain stated that the panel opinion imposed

a poorly-tailored injunction which will needlessly cost the State of Washington hundreds of millions of dollars.

In a separate statement, Judge Hurwitz stated the dissent from the denial of rehearing en banc unfortunately perpetuated the false notion that the full court's refusal to exercise its discretion under Federal Rule of Appellate Procedure 35(a) is tantamount to the court "tacitly affirming the panel opinion's erroneous reasoning." Judge Hurwitz stated that, like the denial of certiorari by the Supreme Court, the denial of rehearing en banc simply leaves a panel decision undisturbed.

COUNSEL

Noah G. Purcell (argued), Solicitor General; Laura J. Watson, Deputy Solicitor General; Robert W. Ferguson, Attorney General; Jessica E. Fogel, Assistant Attorney General; Robert W. Ferguson, Attorney General; Office of the Attorney General, Olympia, Washington; for Defendant-Appellant State of Washington.

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Clay R. Smith, Deputy Attorney General; Clive J. Strong, Chief of Natural Resources; Lawrence G. Wasden, Attorney General; Office of the Attorney General, Boise, Idaho; for Amicus Curiae State of Idaho.

Dominic M. Carollo, Yockim Carollo LLP, Roseburg, Oregon, for Amici Curiae Klamath Critical Habitat Landowners, Modoc Point Irrigation District, Mosby Family Trust, Sprague River Water Resource Foundation Inc., and TPC LLC.

ORDER

The panel, as constituted above, has voted unanimously to deny the petition for panel rehearing. Judges Fletcher and Gould have voted to deny the petition for rehearing en banc, and Judge Ezra so recommends.

A judge of the court called for a vote on the petition for rehearing en banc. A vote was taken, and a majority of the non recused active judges of the court failed to vote for en banc rehearing. Fed. R. App. P. 35(f).

The petition for rehearing and the petition for rehearing en banc, filed August 11, 2016, are **DENIED**.

W. FLETCHER and GOULD, Circuit Judges, concurring in the denial of rehearing en banc:*

The opinion in this case speaks for itself. *See United States v. Washington*, 853 F.3d 946 (9th Cir. 2017). We write to respond to the views of our colleagues who dissent from the decision of our court not to rehear the case en banc.

In 1854 and 1855, U.S. Superintendent of Indian Affairs and Governor of Washington

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* District Judge Ezra was a member of the three-judge panel that decided this case. Because Judge Ezra is not a member of the Ninth Circuit, he does not have the authority to vote on a petition for rehearing en banc.

Territory, Isaac I. Stevens, negotiated a series of virtually identical Treaties with the Indian Tribes that lived around Puget Sound. In return for their agreement to live on reservations, the Tribes were promised equal access to off-reservation fishing "at all usual and accustomed grounds and stations." The Supreme Court described the importance of the promise:

> During the negotiations, the vital importance of the fish to the Indians was repeatedly emphasized by both sides, and the Governor's promises that the treaties would protect that source of food and commerce were crucial in obtaining the Indians' assent.

Washington v. Washington State Commercial Passenger Fishing Vessel Ass'n ("Fishing Vessel"), 443 U.S. 658, 676 (1979).

For more than 100 years, the State of Washington deliberately and systematically prevented the Tribes from engaging in the off-reservation fishing promised under the Treaties. The State eventually came to employ surveillance planes, high powered boats, tear gas, billy clubs and guns against tribal members engaged in off-reservation fishing. In 1970, the United States brought suit against Washington State to enforce the Treaties.

The district court held that the Treaties promised the Tribes fifty percent of the harvestable salmon in any given year. The Supreme Court affirmed, holding that the Tribes had been promised a "moderate living" from fishing, and that they were entitled to fifty percent of the harvest, up to the point where they were able to catch enough

salmon to provide a moderate living. *Id.* at 686. The district court entered a detailed injunction which the State strenuously resisted. The Supreme Court affirmed the injunction:

> It is . . . absurd to argue . . . both that the state agencies may not be ordered to implement the decree and also that the District Court may not itself issue detailed remedial orders as a substitute for state supervision.

Id. at 695.

The current proceeding is a continuation of the suit brought by the United States in 1970.

Salmon are anadromous fish—hatching in fresh water, migrating to the ocean to mature, and returning to fresh water to spawn—so access to spawning grounds is essential to their reproduction and survival. For many years, the Tribes had complained that the State had built roads across salmon-bearing streams, and that it had built culverts under the roads that allowed passage of water but not passage of salmon. The United States instituted the current proceeding in 2001 to require the State to modify its culverts to allow passage of salmon.

The State has fought the proceeding tooth and nail. The State contended, and continues to contend, that it can block every salmon-bearing stream into Puget Sound without violating the Treaties. The district court disagreed and held that the State's affirmative act of building roads with salmon-blocking, or "barrier," culverts violated the Treaties. The district court sought the State's participation and assistance in drafting a remedial injunction,

but the State refused to participate. Despite the State's refusal, the district court entered an injunction that was substantially more favorable to the State than the injunction sought by the United States.

The State appealed, objecting to the district court's holding that its affirmative acts in building roads with barrier culverts violated the Treaties. Without conceding that it violated the Treaties, the State also objected to the scope of the injunction in whose formulation it had declined to participate. We affirmed.

Our dissenting colleagues object to our decision on four grounds. We respond to the objections in turn.

I. Violation of the Treaties

First, our colleagues contend that we have misread the Supreme Court's 1979 decision in *Fishing Vesssel*. They contend that fifty percent of the harvestable salmon is an absolute "ceiling" on the amount of fish the Tribes have been promised. They contend that the Treaties promised only that the Tribes will get fifty percent of the harvestable salmon, and that Treaties permit the State to take affirmative acts that have the effect of diminishing the supply of salmon below the amount necessary to provide a moderate living. According to our colleagues, if the State acts affirmatively to entirely eliminate the supply of harvestable salmon, the Tribes get fifty percent of nothing.

Our colleagues misread *Fishing Vessel*. The Court recognized that the Treaties promised that the Tribes would have enough salmon to feed themselves.

In the words of the Court, the Treaties promised that the Tribes would have enough harvestable salmon to provide a "moderate living." *Fishing Vessel*, 433 U.S. at 686. The Tribes get only fifty percent of the catch even if the supply of salmon is insufficient to provide a moderate living. However, there is nothing in the Court's opinion that authorizes the State to diminish or eliminate the supply of salmon available for harvest.

It is undisputed that at the present time fifty percent of the harvestable salmon in Puget Sound does not provide a moderate living to the Tribes. It is also undisputed that the State has acted affirmatively to build roads with barrier culverts that block the passage of salmon, with the consequence of substantially diminishing the supply of harvestable salmon. Evidence at trial showed that remediation of the State's barrier culverts will increase the yearly supply of salmon by several hundred thousand adult salmon. Half of the newly produced harvestable salmon will be available to the Tribes. The other half will be available to non-Indians.

Our opinion does not hold that the Tribes are entitled to enough salmon to provide a moderate living, irrespective of the circumstances. We do not hold that the Treaties' promise of a moderate living is valid against acts of God (such as an eruption of Mount Rainier) that would diminish the supply of salmon. Nor do we hold that the promise is valid against all human-caused diminutions, or even against all State-caused diminutions. We hold only that the State violated the Treaties when it acted affirmatively to build roads across salmon bearing

streams, with culverts that allowed passage of water but not passage of salmon.

II. Effect and Scope of the Holding

Second, our colleagues contend that our decision may open the door to "a whole host of future suits," and that we do "nothing to cabin [our] opinion." We are not sure what the hypothesized future suits would be. But we are sure that we have not opened the floodgates to a host of future suits.

Because of the Eleventh Amendment, a further suit against Washington State seeking enforcement of the Treaties cannot be brought by the Tribes. Nor can it be brought by non-Indians who would benefit from an increase in harvestable salmon (recall that 50% of any increased salmon harvest will go to non-Indians). Nor can it be brought by environmental groups. The only possible plaintiff is the United States. The United States is a responsible litigant and is not likely to burden the States without justification. The history of this litigation demonstrates that it was no easy thing for the Tribes to persuade the United States to institute proceedings against the state of Washington to seek remediation of the State's barrier culverts, and will be no easy thing for other Northwest tribes to persuade the United States to bring comparable suits against other States.

Our opinion describes the facts of this litigation carefully and in detail, as required by our decision in *United States v. State of Washington*, 759 F.2d 1353, 1357 (9th Cir. 1985) (en banc) ("[T]he measure of the State's [Treaty] obligation will depend for its precise legal formulation on all of the facts

presented by a particular dispute."). Cabining our opinion by means other than a careful, detailed description of the facts presented would have entailed positing hypothetical facts in cases not before us and giving an improper advisory opinion. On the facts presented to us, we held that the State violated the Treaties when it acted affirmatively to block salmon-bearing streams by building roads with culverts that protected the State's roads but killed the Tribes' salmon. Other cases with different facts might come out differently, but we did not decide—and should not have decided—such cases.

III. Laches

Third, our colleagues contend that the United States' suit on behalf of the Tribes is barred by laches. There is an established line of cases holding that the United States cannot, based on laches or estoppel, render unenforceable otherwise valid Indian treaty rights. Our colleagues contend that these cases have been overruled by *City of Sherrill v. Oneida Indian Nation of N.Y.*, 544 U.S. 197 (2005), and that laches applies here.

This contention is belied by *Sherrill* itself. In 1788, the Oneida Indian Nation ("OIN"), located in New York State, had a reservation of 300,000 acres. By 1920, the OIN had sold off all but 32 acres. In 1985, the Supreme Court held that the sale of OIN lands had been illegal, and that the OIN was entitled to monetary compensation for the sales. *County of Oneida v. Oneida Indian Nation of N.Y.*, 470 U.S. 226 (1985). The OIN subsequently bought two parcels of land within the boundaries of its ancestral reservation. The parcels had been sold to a non-Indian in 1807. The OIN asserted that the

repurchased parcels were sovereign tribal property and therefore free from local taxation. The Supreme Court disagreed. It wrote, "[T]he Tribe cannot unilaterally revive its ancient sovereignty . . . over the parcels at issue. The Oneidas long ago relinquished the reins of government and cannot regain them through open market purchases from current titleholders." *Sherrill*, 544 U.S. at 203.

The case before us is different from *Sherrill*. The question in our case is not whether, as in *Sherrill*, a tribe can reassert sovereignty over land within the boundaries of an abandoned reservation. The Tribes have not abandoned their reservations. Nor is the question whether, as in *Sherrill*, the Tribes have acted to relinquish their rights under the Treaties. The Tribes have done nothing to authorize the State to construct and maintain barrier culverts. Nor, finally, is the question whether, as in *Sherrill*, to allow the revival of disputes or claims that have long been dormant. Washington and the Tribes have been in a continuous state of conflict over treaty-based fishing rights for well over one hundred years.

IV. Breadth of the Injunction

Fourth, our colleagues contend that the injunction is overbroad. The United States requested an injunction that would have required the remediation of all of the State's barrier culverts within five years. The district court declined that request. Instead, it issued a nuanced injunction requiring the remediation of some, but not all, of the barrier culverts within seventeen years.

Briefly stated, the injunction provides as follows. The only seriously debated culverts are

those under the control of the Washington State Department of Transportation ("WSDOT"). The court ordered the State to prepare a list of all of WSDOT barrier culverts within the area covered by the Treaties. In Paragraph 6 of the injunction, the court ordered WSDOT to provide, within seventeen years, fish passage for each barrier culvert with more than 200 linear meters of accessible salmon habitat upstream to the first natural passage barrier. In Paragraph 7, the court ordered WSDOT to replace existing barrier culverts above which there was less than 200 linear meters of upstream accessible salmon habitat only at the "end of the useful life" of the culverts, or sooner "as part of a highway project." In Paragraph 8, the court allowed WSDOT to defer correction of some of the culverts described in Paragraph 6. Deferred culverts can account for up to ten percent of the total accessible upstream habitat from the culverts described in Paragraph 6. WSDOT can choose which culverts to defer, after consulting with the United States and the Tribes. Culverts deferred under Paragraph 8 need only be replaced on the more lenient schedule specified in Paragraph 7.

The injunction thus divided WSDOT barrier culverts into two categories. High priority category culverts must be remediated within seventeen years. Low priority category culverts must be remediated only at the end of the natural life of the existing culvert, or in connection with a highway project that would otherwise require replacement of the culvert. Deferred culverts in the high priority category (culverts blocking a total of ten percent of the accessible upstream habitat above all the high priority culverts) can be remediated on the schedule

of low priority culverts.

In identifying the State's barrier culverts and sorting them into the two categories, the district court focused on the amount of available upstream spawning habitat before encountering a natural barrier. Culverts with more than 200 linear meters of accessible upstream habitat are in the high category; culverts with less than 200 meters are in the low category. The court ignored the existence of man-made barriers, including those downstream of the State's barrier culverts. In so doing, the court followed the methodology of the State in identifying and prioritizing culverts that should be remediated. The State could have objected to the court's reliance on its own methodology, but it did not do so.

There were good reasons for the district court to ignore, for purposes of its injunction, the existence of downstream barriers. The most obvious reason is the following: The State identified a total of 817 state-owned barrier culverts, including both high and low priority culverts. On streams where there are both state and non-state barrier culverts, there are 1,590 non-state culverts. Of those, 1,370 are upstream of the state culverts; only 220 are downstream. Of those 220 downstream culverts, 152 allow partial passage of salmon; only 68 entirely block passage.

Even if we were to make the assumption that all 817 of the identified barrier culverts are high priority culverts (which they clearly are not), state-provided documents introduced at trial showed that roughly 230 of them—more than all of the 220 non-state downstream culverts combined—need not be remediated within seventeen years. They may be

deferred and need be remediated only at the end of their natural life or in connection with an independently undertaken highway project. Further, Washington law already imposes some obligation on the part of owners of non-state barrier culverts to repair or replace them, at their own expense, to allow fish passage.

Our dissenting colleagues emphasize the high cost of complying with the injunction. Our colleagues, like the State, exaggerate the cost. The State claimed in its brief to us that compliance with the injunction will cost a total of $1.88 billion. Our colleagues highlight that figure at the beginning of their dissent. There is no plausible basis for the State's claim of $1.88 billion. We analyze the evidence in detail in our opinion, to which we refer the reader. For present purposes, it is sufficient to note, as we point out in our opinion, that "Washington's cost estimates are not supported by the evidence." *United States v. Washington*, 853 F.3d at 976.

* * *

In sum, the district court properly found that Washington State violated the Treaties by acting affirmatively to build state-owned roads, and to build and maintain salmon-blocking culverts under those roads. By allowing passage of water, the culverts protect the State's roads. But by not allowing passage of fish, the culverts kill the Tribes' salmon. There is ample evidence in the record that remediation of the State's barrier culverts will have a substantial beneficial effect on salmon populations, resulting in more harvestable salmon for the Tribes. As an incidental result, there will also

be more harvestable salmon for non-Indians. The United States requested an injunction requiring remediation of all of the State's barrier culverts within five years. The district court crafted a careful, nuanced injunction, giving the United States much less than it requested. We unanimously concluded that the district court properly found a violation of the Treaties by the State, and that it acted within its discretion in formulating its remedial injunction.

O'SCANNLAIN, Circuit Judge,* with whom KOZINSKI, TALLMAN, CALLAHAN, BEA, IKUTA, and N.R. SMITH, Circuit Judges, join, and with whom BYBEE and M. SMITH, Circuit Judges, join as to all but Part IV, respecting the denial of rehearing en banc:

Fashioning itself as a twenty-first century environmental regulator, our court has discovered a heretofore unknown duty in the Stevens Indian Treaties of 1854 and 1855. The panel opinion in this case enables the United States, as a Treaty signatory, to compel a State government to spend

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* As a judge of this court in senior status, I no longer have the power to vote on calls for rehearing cases en banc or formally to join a dissent from failure to rehear en banc. *See* 28 U.S.C. § 46(c); Fed. R. App. P. 35(a). Following our court's general orders, however, I may participate in discussions of en banc proceedings. *See* Ninth Circuit General Order 5.5(a).

$1.88 billion[1] to create additional salmon habitat by removing or replacing culverts[2] under state-maintained highways and roads, wherever found. Pacific Northwest salmon litigation has been ongoing for almost fifty years,[3] has been before our court multiple times, and has been up to and down from the Supreme Court. Nonetheless, it apparently *just* occurred to the Tribes, the United States, and our court that in order to fulfill nineteenth century federal treaty obligations, the State of Washington must now be required to remove physical barriers which might impede the passage of salmon. *See Washington V*, 853 F.3d at 966.

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[1] According to the State's estimate. There is a dispute about the actual cost of the injunction, but even using the more conservative estimates on which the district court relied, the cost of replacing all 817 culverts ranges from $538 million to $1.5 billion (the average cost of replacing a culvert was $658,639 to $1,827,168). *See United States v. Washington*, 853 F.3d 946, 976 (9th Cir. 2017) ("*Washington V*").

[2] A culvert is "[a] tunnel carrying a stream or open drain under a road or railway." *Culvert*, OxfordDictionaries.com, https://en.oxforddictionaries.com/definition/culvert (last visited April 29, 2017).

[3] Five iterations of the *United States v. Washington* litigation, including this case, which is referred to as *Washington V*, are mentioned herein and are referred to as *Washington I*, *Washington II*, etc.

Given the significance of this case—both in terms of dollars and potential precedential effect—it seemed the ideal candidate for en banc review and, hopefully, correction on the merits. But rather than reining in a runaway decision, our court has chosen to do nothing—tacitly affirming the panel opinion's erroneous reasoning.

With utmost respect, I believe our court has made a regrettable choice.

I

In reaching its conclusion, the panel opinion makes four critical errors.

First, it misreads *Washington v. Washington State Commercial Passenger Fishing Vessel Association* ("*Fishing Vessel*"), 443 U.S. 658 (1979), as requiring Washington to ensure that there are a certain "number of fish" available for the Tribes, "sufficient to provide a 'moderate living.'" *Washington V*, 853 F.3d at 965 (quoting *Fishing Vessel*, 443 U.S. at 686).

Second, by holding that culverts need to be removed because they negatively impact the fish population, the panel opinion sets up precedent that could be used to challenge activities that affect wildlife habitat in other western states, which led Idaho and Montana to join Washington in requesting rehearing. The panel opinion fails to articulate a limiting legal principle that will prevent its holding from being used to attack a variety of development, construction, and farming practices, not just in Washington but throughout the Pacific Northwest.

Third, the panel opinion contravenes *City of Sherrill v. Oneida Indian Nation of New York*, 544 U.S. 197 (2005), by refusing to apply the doctrine of laches to the United States.

Fourth, the panel opinion upholds an injunction that is overbroad—requiring the State to spend millions of dollars on repairs that will have no immediate effect on salmon habitat.

II

The Stevens Treaties[4] provide that "[t]he right of taking fish, at all usual and accustomed grounds and stations, is further secured to said Indians, in common with all citizens of the Territory." *Fishing Vessel*, 443 U.S. at 674. The precise contours of this guarantee remain hotly contested but were most fully addressed by the Supreme Court's opinion in *Fishing Vessel*.

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[4] The Treaties are a series of Senate-ratified agreements between the United States and various Indian tribes that were negotiated in the 1850s by Isaac Stevens, then-federal Governor and Superintendent of Indian Affairs of the Washington Territory (pre-statehood), under which the Tribes agreed to give up land in exchange for monetary payments. *Fishing Vessel*, 443 U.S. at 661–62, 666. The Treaties contained clauses reserving the Tribes' right to fish on ceded land. *See, e.g.*, Treaty of Medicine Creek, 10 Stat. 1132 (1854). Beginning with U.S. District Court Judge George Boldt's

A

The panel opinion reads language in *Fishing Vessel* as requiring that there be enough fish to provide a "moderate living" for the Tribes. *See Washington V*, 853 F.3d at 965–66. It is true that the Court stated that "Indian treaty rights to a natural resource [i.e. fish]. . . secures so much as, but no more than, is necessary to provide the Indians with a livelihood—that is to say, a moderate living." *Fishing Vessel*, 443 U.S. at 686. In isolation, this statement might be read as guaranteeing the Tribes a certain number of fish, but only if one ignores the rest of the opinion. In *Fishing Vessel*, the Supreme Court adopted the United States' position that the Treaties entitled the Tribes "either to a 50% share of the 'harvestable' fish" passing through their fishing grounds "or to their needs, *whichever was less.*" *Id.* at 670 (emphasis added); *see also id.* at 685–86.

Thus, notwithstanding the significance of fish to the Tribes, the Court recognized that "some ceiling should be placed on the Indians' apportionment to prevent their needs from exhausting the entire resource and thereby frustrating the treaty right of 'all [other] citizens of

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decision in 1974, *United States v. State of Washington*, 384 F. Supp. 312 (W.D. Wash. 1974) ("*Washington I*"), the contours of these fishing rights have been the subject of extensive litigation before the district court, our court, and the Supreme Court and tumultuous protests by the people impacted by these decisions.

the Territory.'" *Id.* at 686. The Court ruled that 50% of the available fish was the appropriate limit. *See id.* ("[T]he 50% figure imposes a maximum . . . allocation.") ("[T]he maximum possible allocation to the Indians is fixed at 50%."); *id.* at 686 n.27 ("Because the 50% figure is only a ceiling, it is not correct to characterize our holding as 'guaranteeing the Indians a specified percentage' of the fish.").

Such ceiling makes intuitive sense. With or without pre-existing barriers, the population of fish varies dramatically from year to year and season to season. In a year with a low run of fish, absent a ceiling, the Tribes' needs could easily predominate, leaving few fish for other citizens. Thus, to protect the rights of all parties to the Treaties, the Court imposed a 50% ceiling.

Since the fish population varies, however, the presence of the ceiling necessarily entails that the Tribes may not always receive enough fish to provide a "moderate living." Indeed, the Court emphasized that the Treaties secured to the Tribes "a fair share of the *available* fish," rather than a certain *number* of fish. *Id.* at 685 (emphasis added). The total number of fish that the Tribes receive indubitably will vary with the run of fish. *See id.* at 679 (observing that the Treaties "secure the Indians' right to take a share *of each run* of fish that passes through tribal fishing areas" (emphasis added)); *id.* at 687 (discussing the "50% allocation of an entire run that passes through . . . customary fishing grounds").

Thus, by imposing a percentage ceiling tied to the relevant run rather than a fixed numerical floor, the Court rejected the proposition that the

Tribes were entitled to a certain number of fish. Indeed, "while the maximum possible allocation to the Indians is fixed at 50%, the minimum is not; the latter will, upon proper submissions to the District Court, be modified in response to changing circumstances."[5] *Id.* at 686–87. Our court has confirmed this holding multiple times.

In *United States v. Washington*, 759 F.2d 1353, 1359 (9th Cir. 1985) ("*Washington III*"), our en banc court explained:

> [T]he Supreme Court in *Fishing Vessel did not hold that the Tribes were entitled to any particular minimum allocation of fish.* Instead, *Fishing Vessel* mandates an allocation of 50 percent of the fish to the Indians, subject to downward revision if moderate living needs can be met with less. The *Tribes have a right to at most one-half of the harvestable fish in the case area.*

Id. (emphasis added). Likewise in *Midwater Trawlers Co-operative v. Department of Commerce*, 282 F.3d 710, 719 (9th Cir. 2002), we observed that under *Fishing Vessel*, the Makah Tribe was entitled "to one-half the harvestable surplus of Pacific whiting that passes through its usual and

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[5] Such changing circumstances include the Tribes finding "other sources of support that lead it to abandon its fisheries." *Id.* at 687. Washington does not present this contention, but arguably the tribal economy has changed dramatically since the enactment of the Stevens Treaties, leading the Tribes to rely less on fish for their subsistence.

accustomed fishing grounds, or that much of the harvestable surplus as is necessary for tribal subsistence, *whichever is less.*" *Id.* (emphasis added). Most recently in *Skokomish Indian Tribe v. United States*, 410 F.3d 506, 513 (9th Cir. 2005), our en banc court again described *Fishing Vessel* as holding that the Tribes were "entitled to an equal measure of the harvestable portion of each run that passed through a 'usual and accustomed' tribal fishing ground, adjusted downward if tribal needs could be satisfied by a *lesser amount.*" *Id.* (emphasis added) (quoting *Fishing Vessel*, 443 U.S. at 685–89).

By holding that the Treaties guarantee "that the *number* of fish would always be sufficient to provide a 'moderate living' to the Tribes," *Washington V*, 853 F.3d at 965 (emphasis added), the panel opinion turns *Fishing Vessel* on its head. It imposes an affirmative duty upon the State to provide a certain quantity of fish, which reads out the 50% ceiling entirely.

Instead, the panel opinion ignores the 50% ceiling, effectively adopting the position urged by the Tribes in *Fishing Vessel* that "the treaties had reserved a pre-existing right to as many fish as their commercial and subsistence needs dictated." 443 U.S. at 670. Yet, as explained, the Supreme Court has already rejected this approach, following instead the United States' position that the Tribes were guaranteed the *lesser* of their needs or 50% of the available run. *See id.* at 670, 685. Likewise, our court has rejected interpretations of *Fishing Vessel* that would entitle the Tribes to a "particular minimum allocation of fish." *Washington*

III, 759 F.2d at 1359. The panel opinion's holding misconstrues not only the Supreme Court's decision in *Fishing Vessel* but also our decisions in *Washington III*, *Midwater Trawlers*, and *Skokomish Indian Tribe*.

B

To reach its conclusion, the panel points to various statements allegedly made by Governor Stevens to the Tribes at the time the Treaties were negotiated in the 1850s. *Washington V*, 853 F.3d at 964–65. As the Supreme Court observed in *Fishing Vessel*, however, "[b]ecause of the great abundance of fish and the limited population of the area, it simply was not contemplated that either party would interfere with the other's fishing rights." 443 U.S. at 668. Indeed, the Supreme Court considered the very same statements in *Fishing Vessel* yet still chose to impose a 50% cap on the Tribes' share of available fish. *See id.* at 666–68 & nn. 9 & 11.[6] Such cap necessarily means that the Tribes are not always guaranteed enough fish to meet their needs. If the Supreme Court considered Stevens' statements and declined to find that the Tribes were entitled to a certain minimum quantity of fish, it eludes me how a panel of our court can reach the opposite conclusion by relying on these statements now. The panel opinion utterly fails to grapple with the 50% cap imposed by *Fishing Vessel*.

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[6] In fact, the panel opinion quotes *Fishing Vessel* for some of these statements. *See Washington V*, 853 F.3d at 964–65.

The panel opinion further cites to the Supreme Court's opinion in *Winters v. United States*, 207 U.S. 564, 576–77 (1908), and our opinion in *United States v. Adair*, 723 F.2d 1394, 1409, 1411 (9th Cir. 1983), as supporting its conclusion that the Stevens Treaties guarantee the Tribes a specific quantity of fish. Yet, neither *Winters* nor *Adair* is factually relevant. Each involved the question of whether certain tribes were entitled to various water rights on their reservations under the treaties creating the reservations.

In *Winters*, the Supreme Court held that the lands ceded to create the Fort Belknap Indian Reservation necessarily included the water rights accompanying such lands. *See* 207 U.S. at 565, 576–77. Likewise in *Adair*, we held "that at the time the Klamath Reservation was established, the [United States] and the Tribe intended to reserve a quantity of the water flowing through the reservation." 723 F.2d at 1410. Thus, both cases stand for the somewhat unremarkable proposition that in the context of Native American reservations, water rights accompany land rights.

It is true that both cases found water rights that were not explicitly detailed in the text of the treaties. Nonetheless, if we read these cases broadly to mean that we *can and should* infer a whole host of rights not contained in the four corners of tribal treaties, the possibilities are endless. Since the Supreme Court made it plain in *Fishing Vessel* that the Tribes are not entitled to a certain numerical amount of fish, we certainly should not rely on *Winters* and *Adair* to hold otherwise.

III

Even if one agrees with the panel opinion that the Tribes are entitled to a specific quantity of fish, however, it does not necessarily mean that the installation and maintenance of culverts run afoul of the Treaties. But assuming that they do, it is far from clear that the drastic remedy of removal or repair should be required.

A

Before reaching its conclusion that the State violated the Treaties, the panel opinion devotes minimal treatment to showing (1) that tribal members would engage in more fishing if there were more salmon and (2) that removing culverts would increase this salmon population. *See Washington V*, 853 F.3d at 966 (devoting three paragraphs to these issues).[7] The panel opinion acknowledges that the State of Washington was not intentionally trying to impact the fish population when it installed culverts under state highways and other roads.[8] *Id.* Nonetheless, the panel opinion

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[7] The panel opinion provides more factual support for the proposition that culverts adversely affect the population of salmon in considering the injunction, *see Washington V*, 853 F.3d at 972–75, but at that point it had already found that the Treaties were violated.

[8] The concurrence makes the extravagant assertion that I maintain that the Treaties allow the State to act "affirmatively to entirely eliminate the

concludes that because there was evidence that culverts affect fish population, and because the fish population is low, the State violated the Treaties by building and maintaining its culverts. *See id.*

This overly broad reasoning lacks legal foundation. There are many factors that affect fish population and multiple fish populations that are low.[9] Is any surface physical activity, wherever found, that negatively affects fish habitat an automatic Treaty violation? If so, the panel's opinion could open the door to a whole host of future suits.

While such speculation may sound far-fetched, in actuality, it is already occurring. Legal commentators have noted that plaintiffs could use the panel's decision to demand the removal of dams and attack a host of other practices that can degrade fish

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supply of harvestable salmon." What utter nonsense! I said no such thing! In building and maintaining the culverts, the State was not acting affirmatively to destroy the salmon population—any negative effects were incidental—as the panel opinion acknowledged. *See Washington V*, 853 F.3d at 966. Far from seeking to eliminate the salmon population, the State recognizes that it is a treasured resource and has spent millions of dollars on programs specifically designed to preserve, to protect, and to enhance the salmon population.

[9] *See, e.g.*, Washington Department of Fish & Wildlife, Washington's Native Char, http://wdfw.wa.gov/fishing/char/ (noting that the bull trout population is "low and in some cases declining").

habitat (such as logging, grazing, and construction).[10] The panel does nothing to cabin its opinion. Nor does it provide any detail for how to determine if a fish population has reached an appropriate size, making further remedial efforts unnecessary.

B

Furthermore, the future reach of this decision extends far beyond the State of Washington. As the amici observe, the same fishing rights are reserved to tribes in Idaho, Montana, and Oregon. Further, the Stevens Treaties also guarantee the Tribes the privilege of hunting. *See Fishing Vessel*, 443 U.S. at 674. There seems little doubt that future litigants will argue that the population of various birds, deer, elk, bears, and similar animals, which were traditionally hunted by the Tribes, have been impacted by Western development. If a court subsequently concludes that hunting populations are covered by the reasoning of this decision, the potential impact of this case is virtually limitless.

C

Yet, our court has already held that the Stevens Treaties cannot be used to attach broad "environmental servitudes" to the land. *See United States v. Washington*, 694 F.2d 1374, 1381 (9th Cir. 1982) (coining the term "environmental servitude"),

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[10] *See, e.g.*, Michael C. Blumm, *Indian Treaty Fishing Rights and the Environment: Affirming the Right to Habitat Protection and Restoration*, 92 Wash. L. Rev. 1, 29–31 (2017).

vacated on reh'g, *Washington III*, 759 F.2d at 1354–55 (but reaching similar result). Thus, in *Washington III*, our en banc court vacated a declaratory judgment from the district court which held "that the treaties impose upon the State a corresponding duty to refrain from degrading or authorizing the degradation of the fish habitat to an extent that would deprive the treaty Indians of their moderate living needs." 759 F.2d at 1355, *vacating United States v. Washington*, 506 F. Supp. 187, 208 (W.D. Wash. 1980) ("*Washington II*"). While the panel's opinion here deals with the specific issue of culverts, its reasoning is not so confined; it effectively imposes the same boundless standard upon the State—preventing habitat degradation—that we rejected in *Washington III*.

D

Once a court has decided that there has been a violation, it must address the remedy. The panel opinion acknowledges "that correction of barrier culverts is only one of a number of measures that can usefully be taken to increase salmon production."[11] *Washington V*, 853 F.3d at 974. And, the panel opinion further concedes "that the benefits of culvert correction differ depending on the

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[11] Indeed, the State argues that while the culverts have been in place, the fish harvest has fluctuated dramatically from "nearly 11 million fish in 1985" to "900,000 fish" in 1999, and then back to "over 4 million fish by 2003." Such evidence tends to suggest that culverts are not a primary driver of fish population.

culvert in question." *Id.* Yet, if culverts are only one "measure" that could affect the salmon population, what about the other measures? Why is it appropriate to require the State to correct culverts rather than something else? Since, at some level, almost all urban growth can impact fish populations, should the State be required to reverse decades of development in an effort to increase the number of fish? Is the answer that any activity that amounts to a Treaty violation must be halted or removed? The panel opinion offers no cost-benefit analysis, or any other framework, to guide future courts on what is an appropriate remedial measure (and what is *not*).[12]

In effect, the panel's decision opens a backdoor to a whole host of potential federal environmental regulation-making. And, it invites courts, who have limited expertise in this area, to serve as policymakers.

But the issues at the heart of this suit—development versus wildlife habitat, removal

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[12] It seems highly likely that if the panel opinion had engaged in such cost-benefit analysis, there would be more cost-effective ways to remedy the alleged Treaties violation. For example, a 1997 state report estimated that if the State replaced the culverts maintained by the Washington State Department of Transportation (which controls a majority of culverts), it would result in an annual increase of 200,000 salmon. *Washington V*, 853 F.3d at 970. It might be cheaper to stock an additional 200,000 salmon into Washington's streams each year.

versus accommodation— are properly left to the political process. Judges are ill- equipped to evaluate these questions. We deal in closed records and have difficulty obtaining and evaluating on-the- ground information—for example, which culverts it would be most cost-effective to remove over the next seventeen years.

Here, the State recognizes that "[s]almon are vital to Washington's economy, culture, and diet." Prior to the injunction, the State was already working to address problematic culverts, and the State has spent "hundreds of millions of dollars" on programs designed "to preserve and restore salmon runs." There is no justification for interfering with the State's existing programs.

IV

Notably, the panel opinion does not prohibit the State from installing future culverts. Instead, it orders the State to correct existing culverts. *See Washington V*, 853 F.3d at 979-80. Yet, according to the State, it was the federal government, now bringing suit in its capacity as trustee for the Tribes, which "*specified the design* for virtually all of the culverts at issue." Further, these culverts have been in place for many decades. According to the State, "Washington's state highway system has been essentially the same size since the 1960's," and thus presumably many culverts predated this litigation, which has been ongoing for almost fifty years. Apparently, however, no one thought that the culverts might be a problem until 2001 when the Tribes filed a request for determination that such pre-existing barriers were infringing the Treaties. *See Washington V*, 853 F.3d at 954.

Given the United States' involvement in designing the culverts and its long acquiescence in their existence, one might suppose that an equitable doctrine such as laches would bar suit by the United States. Indeed, "[i]t is well established that laches, a doctrine focused on one side's inaction and the other's legitimate reliance, may bar long-dormant claims for equitable relief." *City of Sherrill*, 544 U.S. at 217.

According to the panel opinion, however, "[t]he United States cannot, based on laches or estoppel, diminish or render unenforceable otherwise valid Indian treaty rights." *Washington V*, 853 F.3d at 967. The panel opinion cites several cases for this proposition, including the 1923 opinion of *Cramer v. United States*, 261 U.S. 219, 234 (1923) (holding that a government agent's unauthorized acceptance of leases of tribal land could not bind the government or tribe), and *United States v. Washington*, 157 F.3d 630, 649 (9th Cir. 1998) ("*Washington IV*") ("[L]aches or estoppel is not available to defeat Indian treaty rights."). *See Washington V*, 853 F.3d at 967.

Yet, the panel opinion's rejection of laches contravenes the Supreme Court's subsequent 2005 decision in *City of Sherrill*, 544 U.S. at 221. That case involved an attempt by the Oneida Indian Nation to reassert sovereignty over newly- purchased land that had once belonged to the Nation but had been sold in contravention of federal law (although with the apparent acquiescence of federal agents) approximately two hundred years before. *Id.* at 203-05, 211. In particular, the Nation sought to avoid local regulatory control and taxation of its newly-purchased parcels. *Id.* at 211.

The Supreme Court analogized the situation to a dispute between states, explaining that "long acquiescence may have controlling effect on the exercise of dominion and sovereignty over territory." *Id.* at 218. The Court further "recognized the impracticability of returning to Indian control land that generations earlier passed into numerous private hands." *Id.* at 219. Therefore, the Court concluded, "the Oneidas' long delay in seeking equitable relief against New York or its local units, and developments in the city of Sherrill spanning several generations, evoke the doctrines of laches, acquiescence, and impossibility, and render inequitable the piecemeal shift in governance this suit seeks unilaterally to initiate." *Id.* at 221.

Thus, *Sherrill* indicates that our court's previous holding in *Washington IV*, 157 F.3d at 649, that laches cannot be used "to defeat Indian treaty rights" is wrong and impliedly overruled. *Cf. Miller v. Gammie*, 335 F.3d 889, 900 (9th Cir. 2003). The Second Circuit has recognized as much, observing that *Sherrill* "dramatically altered the legal landscape" by permitting "equitable doctrines, such as laches, acquiescence, and impossibility" to "be applied to Indian land claims." *Cayuga Indian Nation v. Pataki*, 413 F.3d 266, 273 (2d Cir. 2005).

Yet, the panel opinion blindly cites *Washington IV* and sidesteps the central tenet of *Sherrill* by attempting to distinguish it on its facts. *See Washington V*, 853 F.3d at 967-68. The panel opinion tries to draw three distinctions: (1) this case does not involve the question of whether the Tribes can regain sovereignty over abandoned land; (2) the Tribes never authorized the design or construction

of the culverts; and (3) the Tribes are not trying to revive claims that have lain dormant. *Id.* at 968.

The first distinction is irrelevant; since *Sherrill* made clear that laches can apply to Indian treaty rights, it should not matter whether a party is seeking to apply laches in the context of sovereignty over land or the enforcement of rights appurtenant to land (the ability to fish).

Second, as Montana and Idaho observe, it does not matter that the Tribes never authorized the design or construction of the culverts because Washington is seeking to impose the doctrine of laches against the United States, not the Tribes. And, as the Second Circuit has made plain, the logic of *Sherrill* applies to the United States when it is acting as trustee for the Tribes. *See Oneida Indian Nation v. Cty. of Oneida*, 617 F.3d 114, 129 (2d Cir. 2010).

Notably, only the United States could bring suit against Washington for alleged culvert violations because Washington is protected by sovereign immunity against suit from the Tribes. *See Idaho v. Coeur d'Alene Tribe of Idaho*, 521 U.S. 261, 268 (1997). The panel opinion asserts that the United States cannot waive treaty rights, and this may be true as a general matter. *Washington V*, 853 F.3d at 967. Nonetheless, in the context of specific litigation, since the United States acts as the Tribes' trustee, such representation necessarily entails the ability to waive certain litigation rights (failing to bring a claim within the statute of limitations for example). Thus, the fact that the Tribes did not authorize the culverts is irrelevant; the United States did, and it further failed to object to the culverts for

many years.

Finally, I disagree with the panel opinion's assertion that the United States is not trying to revive claims that have lain dormant. Presumably, the State's alleged violation of the Treaties was complete when it constructed the culverts (and relevant highways) in the 1960s. The United States first brought suit to enforce the Tribes' fishing rights in 1970. *Washington V*, 853 F.3d at 958. Yet, the United States found no problem with the culverts until 2001. While the claims did not lie dormant for 200 years as in *Sherrill*, they were dormant for over 30 years. And as in *Sherrill*, there are significant practical issues involved with asserting the claims now such as the time, expense, and efficacy of removing the culverts. *See* 544 U.S. at 219.

Thus, while *Sherrill* may be factually distinct, it is also directly on point. The panel opinion errs by ignoring its central teaching. There is good reason to contend that the United States is barred from bringing this suit by the doctrine of laches. And, if the United States is barred from suit, the entire suit is prohibited, since the Tribes cannot puncture the State's defense of sovereign immunity on their own. *See Coeur d'Alene Tribe*, 521 U.S. at 268.

Rather than taking the opportunity to harmonize our precedent, the panel opinion ignores the changes wrought by *Sherrill*, defying the Supreme Court's direction.

V

Even if one concludes (1) that the Treaties guarantee the Tribes enough fish to sustain a

"moderate living," (2) that violation of such guarantee can and should be remedied by removing culverts, and (3) that the suit is not barred by the doctrine of laches, there is still good reason to reject the injunction itself as overbroad. As the State explains, the injunction requires it to replace or repair all 817 culverts located in the area covered by the Treaties without regard to whether replacement of a particular culvert actually will increase the available salmon habitat.

In addition to state-owned culverts, there are a number of other privately-owned culverts and barriers on the streams in question which are not covered by the injunction. Where there are non-state-owned culverts blocking fish passage downstream or immediately upstream from state-owned culverts, replacement of the State's culverts will make little or no difference on available salmon habitat. Indeed, the State observes that

> (1) roughly 90% of state barrier culverts are upstream or downstream of other barriers . . .
>
> (2) state-owned culverts are less than 25% of known barrier culverts . . . and (3) in many watersheds, non-state barrier culverts drastically exceed state-owned culverts, by up to a factor of 36 to 1[.]

The panel attempted to address this issue in its revised opinion. First, the opinion quotes testimony from a former State employee stating that Washington itself does not take into account the presence of non-state-owned barriers when calculating the priority index for which culverts to address. *Washington V*, 853 F.3d at 973. What the

opinion does not reveal, however, is that this same expert also testified that correcting state-owned culverts that are downstream from non-state barriers "generally" will not have an immediate impact or benefit on salmon habitat. And, according to the State of Washington, the priority index, notwithstanding its name, typically does not dictate which barriers the State addresses first; instead the State focuses on culverts in streams without barriers.

Next, the panel opinion points out that Washington law requires dams or other stream obstructions to include a fishway and observes that the State may take corrective action against private owners who fail to comply with this obligation. *Washington V*, 853 F.3d at 973 (quoting Wash. Rev. Code Ann. § 77.57.030(1)-(2)). Yet, what the panel opinion fails to disclose is that this law only went into effect in 2003 and specifically "grandfathered in" various obstructions that were installed before May 20, 2003. Wash. Rev. Code Ann. § 77.57.030(3). Presumably, some of the non-state barriers would fall under this exception.

Finally, the panel opinion observes that

> [I]n 2009, on streams where there were both state and non-state barriers, 1,370 of the 1,590 non-state barriers, or almost ninety percent, were upstream of the state barrier culverts. Sixty nine percent of the 220 downstream non-state barriers allowed partial passage of fish. Of the 152 that allowed partial passage, "passability" was 67% for 80 of the barriers and 33% for 72 of them.

Washington V, 853 F.3d at 973.

Given the significant cost of replacing barriers, however, being forced to replace even a single barrier that will have *no tangible impact* on the salmon population is an unjustified burden. Even using the most conservative estimates found by the district court, the average cost of replacing a single culvert is between $658,639 and $1,827,168. *Washington V*, 853 F.3d at 976.[13] We do not know the precise number of state-owned culverts that are located above non-state-owned culverts which prevent all fish passage. Yet, considering that there are at least sixty-eight non-state-owned barriers blocking *all* passage downstream from state-owned culverts,[14] there are almost certainly more than one or two culverts whose replacement would have no impact *whatsoever* on salmon habitat. The panel's opinion utterly fails to explain why the State should waste millions of dollars on such culverts in particular.

Further, even if the majority of non-state barriers are upstream, the court should still take into account the location of these barriers. As noted, if a non-state upstream barrier is close to or

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[13] Contrary to the curious claim in the concurrence that the costs are exaggerated, these figures were relied upon in the panel's own opinion!

[14] Sixty-eight equals thirty-one percent of 220. *See Washington V*, 853 F.3d at 973 (explaining that "[s]ixty nine percent of the 220 downstream non-state barriers [i.e. 152 culverts] allowed partial passage of fish," and thus by implication, thirty-one percent (i.e. 68 culverts) blocked all passage).

immediately above a state barrier, replacing the state barrier will have little effect on the size of salmon habitat, but it will come at a significant cost to the State.

The panel opinion observes that the injunction offers the State a longer schedule for replacing barriers that will open up less habitat. *See Washington V*, 853 F.3d at 974-75. It may be advantageous to the State to have the cost spread out over a longer time period, but whether it occurs five years or twenty-five years from now, the panel opinion fails to explain why taxpayers should be required to replace barriers that will not change the available salmon habitat.[15]

Thus, significant overbreadth problems remain. There is no doubt that the record in this case is voluminous and pinpointing the specific culverts whose removal might actually impact the available salmon habitat is an arduous task. Both the panel and district court made a valiant effort to wade through the many pages of maps and

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[15] In addition to the obvious financial cost to the State, there is also a broader cost to residents. Shortly after the panel's opinion was issued, various news stories informed residents of highway closings resulting from the repair of culverts associated with the injunction. *See, e.g.*, KIRO7, *S[R] 167 to be closed all weekend from Sumner to Auburn* (Aug. 19, 2016), http://www.kiro7.com/news/local/sb-167-to-be-closed-all-weekend-from-sumner-to-auburn/426411799.

statistics.[16] As it currently stands, however, the injunction is unsupportable.

VI

In sum, there were many reasons to rehear this case en banc. The panel opinion's reasoning ignores the Court's holding in *Fishing Vessel* and our own cases, is incredibly broad, and if left unchecked, could significantly affect natural resource management throughout the Pacific Northwest, inviting judges to become environmental regulators. By refusing to consider the doctrine of laches, the panel opinion further disregards the Supreme Court's decision in *Sherrill*, relying instead on outdated and impliedly overruled precedent from our court. Finally, the panel opinion imposes a poorly-tailored injunction which will needlessly cost the State hundreds of millions of dollars.

Rather than correcting these errors, our court has chosen the path of least resistance. We should have reheard this case en banc.

Separate Statement of HURWITZ, Circuit Judge:

The dissent from the denial of rehearing en banc unfortunately perpetuates the false notion that the full court's refusal to exercise its discretion under Federal Rule of Appellate Procedure 35(a) is tantamount to the court "tacitly affirming the panel opinion's erroneous reasoning." This effectively

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[16] Indeed, the difficulties of crafting an appropriate injunction illustrate why it is an undertaking best left to the State.

rewrites Rule 35(a). The Rule is entirely discretionary, providing that the court "may order" rehearing en banc, and cautioning that such an order "is not favored" and is reserved for "a question of exceptional importance" or "to secure or maintain uniformity of the court's decisions."

Like the denial of certiorari by the Supreme Court, the denial of rehearing en banc simply leaves a panel decision undisturbed. There are at least as many valid reasons for a circuit judge to decide not to vote to rehear a case en banc as there are for a Supreme Court justice to decide not to vote to grant certiorari. Indeed, there is at least one additional reason—Supreme Court review remains available to the losing litigant in our court, so it is not necessary that each of us have the last word on every case. No one would suggest that when the Supreme Court exercises its discretion not to grant certiorari, it is "tacitly affirming" the decision below. No different legal or factual conclusion can be made here.

Judges on our court—even those who cannot participate in the voting—are entirely free to criticize the court's failure to grant rehearing en banc and express their own views as to why a panel decision is incorrect. But it is not correct to impute hidden meanings to the discretionary decisions of others. When a judge chooses not to indicate views on the merits of a controversy, colleagues should not invent them.

en.oxforddictionaries.com

culvert – definition of culvert in English

5-6 minutes

noun

A tunnel carrying a stream or open drain under a road or railway.

'There are also plans to dig a culvert to carry water if the drainage ditch is full but he doubted there was enough room to dig one within the width of the road.'

'He directed the officials to complete the construction of culverts and link roads and ensure the proper drinking water supply.'

'What appears to be the problem to us is the size of a culvert underneath the road into the ornamental pond.'

'The project also required construction of a 29.5-foot fill over an old concrete box culvert.'

'According to the 1996 Highway Road Humps Regulations they must not be built on or within 25 metres of bridges, subways, culverts or tunnels.'

'These criminal acts will retard progress and push up costs of building the road as the demolished culverts will have to be replaced.'

'The South Fork of the Elkhorn River goes under the road in a culvert.'

'A nearby culvert, meant to carry away the sewage, is totally damaged.'

'Earth pressure distribution around concrete box culverts has been the subject of a few studies.'

'The tanks, roads, culverts and lagoon opening have all suffered through the lack of maintenance.'

'Variables considered in the analysis were culvert size, location, and wall thickness.'

'Aggravating the problems is a pair of culverts through Provincial Road 205, which have been set at the wrong level.'

'The figure also shows a little tensile stress at the roof center of larger culverts.'

'However, the size and weight of concrete box culverts can make transportation and handling a problem.'

'A culvert stabilized with snow was the first structure tested for small streams.'

'They also have to cut several miles of drain, installing several large culverts along the system.'

'Drivers often don't even realize when they cross streams, nor that the culverts built to carry those streams might pose problems to endangered salmon and trout species.'

'It is asphalted and the gradient runs south to north up to the village temple, except near the village pond where a culvert has raised the road surface, upsetting the natural gradient.'

'A culvert has also been opened up below one set of steps and all it would take is for one child to trip and fall head first into it.'

'Thus, culverts stabilized with snow are not needed when the stream is already frozen solid.'

verb

[WITH OBJECT]

Channel (a stream or drain) through a culvert.

'we have asked for the river to be culverted'

'Where I grew up in Ohio, we saw crawdads, or crayfish, in the culverted, sewage-scented 'creeks' and would no sooner eat one than we would kitty litter.'

'The river is now culverted beneath the largely Victorian town.'

'Talking to the engineers, environmentalists and politicians responsible, I realised that here, where council engineers want to culvert more of it, we are ten years behind the times.'

'Sprawl and malls are filling in the vacant lots and woodlands where we used to play; rivers and streams are culverted, channelized, and barren; and the coasts, lakesides, and mountains are spotted with trophy homes and locked gates.'

'Or it might have happened later, when the creek was culverted and the woods cut down to make way for subdivisions and shopping malls.'

'I have agreed details to culverting streams, adjacent to the M4 motorway, to allow the canal to be extended over these watercourses.'

'But since the city wants to use water diverted from Bradford Beck - which is culverted under the city centre - experts have been working on ways of making sure the river's quality is up to scratch.'

'She has happy recollections of childhood life in the area and the freedom to roam before rivers were culverted and open land was developed.'

'Of course, if I got my planning permission, I'd have to divert yon beck and culvert it away from your place.'

'And during the next 12 months up to six are likely to be

culverted and filled in.'

'The flood would not have occurred if the stream had not been culverted or if a culvert of sufficient size had been installed.'

'The plans include culverting part of Willowbeck and the agency has now withdrawn its objection, saying it is satisfied the development 'will not have a significant effect on flooding in Northallerton'.'

'Ironically, all that culverting work bounced back in his face, literally, for when we did have a heavy storm, the.overflow went the other way and flushed several thousand pounds' worth of rainbow trout into the beck.'

'He made his report following a motion that the stream be culverted.'

Origin

Late 13th century: of unknown origin.

Pronunciation

Early studies described these fish as a variety of the Arctic char, while later work declared them to be a separate species. For a long time, the bull trout was considered just a localized version of the Dolly Varden. Now many fisheries scientists believe that Dolly Varden and bull trout are two distinct species that look

amazingly similar. One thing is clear, though, as more of the puzzle surrounding these species unravels: these fish are reeling from a head-on collision with rampant human population growth and environmental damage, and are losing.

Historically, sport fishing regulations were liberal for bull trout and Dolly Varden. But in more recent years, as indications of fish abundance began to decline, more restrictive regulations were imposed.

Contact your local Washington Department of Fish and Wildlife regional office to find out which waters in your area are currently open to fishing for bull trout/Dolly Varden. Also consult the latest WDFW fishing regulations pamphlet.

Description

Bull trout and Dolly Varden can grow quite large, with typical adults reaching two to five pounds in Washington. The state record bull trout, caught from the Tieton River, weighed 22 pounds, 8 ounces, while the record Dolly Varden, taken from the Skykomish River, weighed 10 pounds.

Although closely resembling trout in body shape, char--which includes the imported brook trout and lake trout--can be distinguished from their relatives by their very fine scales and a reverse coloration. Char have dark-colored bodies with light spots while trout (such as rainbow and cutthroat) and Pacific salmon have light-colored bodies with dark spots.

Bull trout and Dolly Varden are difficult to distinguish from each other, even for specialists. Dolly Varden tend to have a more rounded body shape while bull trout have a larger, more flattened head and a more pronounced hook on the lower jaw. Some scientists

believe that one of the distinguishing characteristics of bull trout is that they do not migrate to saltwater. However, Washington biologists have recently found bull trout in Puget Sound.

Their color varies with habitat and locality, but the body is generally olive green, the back being darker than the pale sides; cream to pale yellow spots (slightly smaller than the pupil of the eye) cover the back, and red or orange spots cover the sides; and the pectoral, pelvic and anal fins have white or cream-colored margins. The male in full fall spawning dress sports a dark olive back, sometimes bordering on black, an orange-red belly, bright red spots and fluorescent white fin edges, rivaling fall's spectacular colors. Sea-run dollies are silvery and the spots may be very faint.

This unique coloration led to the common name Dolly Varden. Dolly Varden is a character in the Charles Dickens novel "Barnaby Rudge" who wears colorful clothing. This novel also led to the same name being given to a pink-spotted calico material that was popular at that time. Because the name is taken from a proper noun, Dolly Varden is one of the few species whose common name is capitalized in scientific literature.

Bull trout and Dolly Varden can be distinguished from eastern brook trout by the absence of vermiculations ("worm tracks") on their back. In addition, the eastern brook trout's red spots are surrounded by blue halos. To keep things interesting, though, bull trout and brook trout have been known to spawn together. Their hybrid offspring can have features of both parents. (Hybridization can be a serious problem in some areas, resulting in the dilution or destruction of the gene pool of the native bull trout.)

Range

Bull trout/Dolly Varden were historically found throughout the Pacific Northwest, from Northern California to the upper Yukon and Mackenzie drainages in Canada, as well as Siberia and Korea. Inland populations were found in Idaho, Montana, Utah, and Nevada. Bull trout may be extirpated in California, and have declined in numbers in much of their range.

Bull trout/Dolly Varden are found throughout Washington except the area east of the Columbia River and north of the Snake River in eastern Washington, and the extreme southwest portion of the state. The geographic ranges of bull trout and Dolly Varden overlap along the Washington coast and Puget Sound. Bull trout are found throughout the state, but Dolly Varden are found only in Western Washington. Bull trout have probably been extirpated from parts of their former range in Washington, such as Lake Chelan and the Okanogan River.

Habitat and Life History

Bull trout and Dolly Varden prefer deep pools of cold rivers, lakes, and reservoirs. Streams with abundant cover (cut banks, root wads, and other woody debris) and clean gravel and cobble beds provide the best habitat. Their preferred summer water temperature is generally less than 55 degrees Fahrenheit, while temperatures less than 40 degrees Fahrenheit are tolerated. Spawning during fall usually starts when water temperatures drop to the mid- to low-40s. Cold, clear water is required for successful reproduction.

Bull trout and Dolly Varden have complex, but similar life histories. Anadromous (sea-going) and migratory resident populations (for example, lake-dwelling stocks and main-stem rearing stocks) often journey long

distances in summer and fall, migrating to the small headwater streams where they hatched, to spawn. Mature adults with these characteristics are generally four to seven years old and 18 to 22 inches in length when they make their first spawning run.

The adults on their spawning runs can undergo some impressive journeys. Fish in the Skagit River system may travel more than 115 miles from the river mouth and ascend to an elevation of more than 3000 feet. The spawning area may be upstream of areas used by any other anadromous species.

Log jams, cascades and falls that are barriers to the chinook's brute strength and the steelhead's acrobatic abilities may be only minor obstacles to the cunning and guile of Dolly Varden and bull trout. While these char can jump remarkably well for fish their size, as much as seven or eight vertical feet under good conditions, they are just as likely to maneuver around a difficult spot. At a potential barrier they sometimes seem to be actively seeking alternative ways around it. Some go as far as to stick their heads out of the water to peek at the situation and find the easiest route.

Bull trout and Dolly Varden use headwater areas that typically are in pristine environments. Spawning begins in late August, peaking in September and October and ending in November. Fish in a given stream spawn over a short period of time; two weeks or less. The fish select clean, one- to three-inch gravel to construct their redds. Ideally, the female moves the smaller gravel away to expose the larger four- to eight-inch rocks below. Attended by several males, with the largest aggressively defending her and the redd, she deposits her eggs in the exposed spaces between the larger rocks and then buries the eggs with smaller gravel.

Almost immediately after spawning, adults begin to work their way back to the main-stem rivers, lakes or reservoirs to over-winter. Some of these fish stay put, others move on to salt water in the spring. Some survive the perils of the river to spawn a second or even third time. Kelts (spawned-out fish) feed aggressively to recover from the stress of spawning. This also happens to be the time when many anglers are searching the river for winter steelhead. Steelhead anglers must learn how to identify these fish and safely release them.

Newly-hatched fish emerge from the gravel the following spring. Those that migrate down to the main rivers, reservoirs and saltwater normally leave the headwater areas as two year olds. But complicating the picture even more are the resident stream populations that exhibit limited movements, living their entire lives in the same stretch of headwater stream. These fish may not mature until they are seven to eight years old, and rarely reach sizes greater than 14 inches in length. Biologists have observed these local residents spawning side-by-side with their much larger anadromous kin.

Bull trout and Dolly Varden are opportunistic feeders, eating aquatic insects, shrimp, snails, leeches, fish eggs and fish. Early beliefs that these fish are serious predators of salmon and steelhead (the state of Alaska once offered a bounty on them, believing that this would improve other salmonid populations) are generally not believed any longer. These native char are now beginning to get a reputation as highly-prized sport fish.

Population Status

While bull trout and Dolly Varden are more abundant in

the north Puget Sound area, statewide their populations are low and in some cases declining. In fact, the U.S. Fish and Wildlife Service (USFWS) recently determined that bull trout are at a moderate risk of extinction in five western states, including Washington. The USFWS found that listing the bull trout as threatened was warranted under the Federal Endangered Species Act on November 1, 1999. Dolly Varden are currently not listed under the Endangered Species Act.

The American Fisheries Society (an international organization of fisheries scientists) has classified bull trout as a "Fish of Special Concern." This means that biologists believe this species may become threatened or endangered by relatively minor disturbances to their habitat, and that additional information is needed to determine their status.

Habitat loss and over-harvest have both contributed to the decline of bull trout and Dolly Varden in Washington. Protection of spawning and juvenile rearing habitat (particularly the critical cold stream temperatures and clean spawning gravel), regulating harvest and controlling poaching are required in order to maintain or increase populations. The threat of global warming is especially alarming for bull trout and Dolly Varden because of limited areas with low enough temperatures for spawning.

Siltation and stream sedimentation are extremely harmful to the char's reproductive needs. Dollies and bull trout must have very clean gravel to spawn in. Destruction of stream-side vegetation through improper logging and agricultural activities increases siltation and stream temperatures, dealing a double blow to these fragile populations.

And if this isn't enough, Dolly Varden and bull trout face another threat from their cousin, the eastern brook trout. This non-native species can hybridize with both the Dollies and bull trout, effectively eliminating them from these areas.

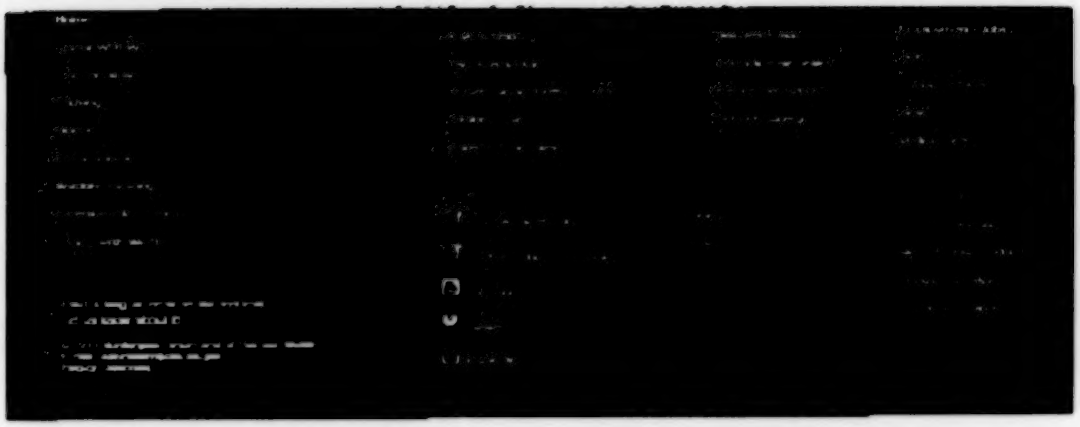
Management

While bull trout and Dolly Varden are currently classified as game fish in Washington, they have been red-flagged as a species of concern by the Washington Department of Fish and Wildlife (WDFW). They are a priority species under the WDFW Priority Habitats and Species Project.

Maintaining stream-side vegetation is essential for controlling stream temperatures and providing cover. Since very cold water and clear gravel are required for spawning and egg incubation, protecting streams that have this habitat feature is one of the critical elements in managing bull trout.

WDFW biologists are continuing to collect the required information to better understand bull trout and Dolly Varden, and are writing a new management plan for the species. In the meantime, newly implemented, restrictive sport fishing regulations will help protect our state's only native char for this and future generations.

With their requirements for cool water and clean gravel and the use of the whole river system at some time in their life history, Dolly Varden and bull trout are good indicators of the general health of the system. A decline in the number of Dollies and bull trout is a cause for concern not only for the fish but for people as well.



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SB 167 to be closed all weekend from Sumner to Auburn

EndPlay

2-3 minutes

Updated: Aug 19, 2016 - 4:46 PM

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PACIFIC, Wash. - Drivers who use southbound SR 167

near the city of Pacific will have to find another way around during a weekend closure.

The lanes will be shut down between Sumner and Auburn.

There will be detours in place, but officials warn they will be challenging.

Between 11 p.m. Friday and 5 a.m. Monday, all southbound lanes will be closed between Ellingston Road and 8th Street East. The 8th Street East off-ramp from southbound SR 167 will be closed as well.

>> WSDOT has provided a PDF document of the detour route.

>> See the South King Slowdown Calendar - August 19-22 with a map here

>> To see maps from previous weekends. click here

Over the weekend, crews plan to repave a mile of southbound SR 167, finalize the highway's permanent configuration, and install the west half of the Jovita Creek 368-foot fish-passable culvert that crosses under the southbound lanes of the freeway.

According to the News Tribune, the culvert project has to do with a court decision in a Federal lawsuit brought forward by Northwest tribes.

The News Tribune says an injunction in the case requires the Washington State Department of Transportation to rebuild poorly-designed culverts-pipes that carry water under roads--blocking salmon and steelhead trout from reaching spawning beds.

Nearly 1,000 culverts will have to be replaced statewide by 2030.

The other project is part of widening SR 167 to add a lane in the southbound direction and extend the existing high occupancy toll lanes system south on SR 167 in the Green River Valley.

Expanding the 9-mile SR 167 HOT lanes will connect King and Pierce County communities to employment hubs in the Puget Sound area.

Extending the southbound HOT lane from its existing end point at 37th Street NW in Auburn to 8th Street East in Pacific will reduce congestion and improve traffic flow and safety on SR 167, according to WSDOT.

The work on the addition of the lane will continue into the fall.

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FOR PUBLICATION

UNITED STATES COURT OF APPEALS FOR THE NINTH CIRCUIT

UNITED STATES OF AMERICA; SUQUAMISH INDIAN TRIBE; SAUK-SUIATTLE TRIBE; STILLAGUAMISH TRIBE; HOH TRIBE; JAMESTOWN S'KLALLAM TRIBE; LOWER ELWHA BAND OF KLALLAMS; PORT GAMBLE BAND CLALLAM; NISQUALLY INDIAN TRIBE; NOOKSACK INDIAN TRIBE; SKOKOMISH INDIAN TRIBE; SQUAXIN ISLAND TRIBE; UPPER SKAGIT INDIAN TRIBE; TULALIP TRIBES; LUMMI INDIAN NATION; QUINAULT INDIAN NATION; PUYALLUP TRIBE; CONFEDERATED TRIBES AND BANDS OF THE YAKAMA INDIAN NATION; QUILEUTE INDIAN TRIBE; MAKAH INDIAN TRIBE; SWINOMISH INDIAN TRIBAL COMMUNITY; MUCKLESHOOT INDIAN TRIBE, *Plaintiffs-Appellees,* v. STATE OF WASHINGTON, *Defendant-Appellant.*	No. 13-35474 D.C. Nos. 2:01-sp-00001-RSM 2:70-cv-09213-RSM ORDER AND AMENDED OPINION

Appeal from the United States District Court for the Western District of Washington

Ricardo S. Martinez, Chief District Judge, Presiding

Argued and Submitted October 16, 2015
Seattle, Washington

Filed June 27, 2016

Amended March 2, 2017

Before: William A. Fletcher and Ronald M. Gould, Circuit Judges, and David A. Ezra,* District Judge.

Opinion by Judge W. Fletcher

SUMMARY**

Tribal Fishing Rights

The panel amended the opinion filed on June 27, 2016; and affirmed the district court's order issuing an injunction directing the State of Washington to correct culverts, which allow streams to flow underneath roads, because they violated, and continued to violate, the Stevens Treaties, which were entered in 1854–55 between Indian tribes in the Pacific Northwest and the Governor of Washington Territory.

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* The Honorable David A. Ezra, District Judge for the U.S. District Court for the District of Hawai'i, sitting by designation.

** This summary constitutes no part of the opinion of the court. It has been prepared by court staff for the convenience of the reader.

As part of the Treaties, the Tribes relinquished large swaths of land, watersheds, and offshore waters adjacent to those areas (collectively, the "Case Area"), in what is now the State of Washington. In exchange, the Tribes were guaranteed a right to engage in off-reservation fishing.

In 1970, the United States brought suit against the State of Washington on behalf of the Tribes to resolve a persistent conflict over fishing rights; and in a 1974 decision, the district court authorized the parties to invoke its continuing jurisdiction to resolve continuing disputes.

The panel held that in building and maintaining barrier culverts within the Case Area, Washington violated, and was continuing to violate, its obligation to the Tribes under the Treaties. The panel also held that because treaty rights belong to the Tribes rather than the United States, it was not the prerogative of the United States to waive them.

Concerning the State of Washington's cross-request seeking an injunction that would require the United States to fix its culverts before Washington repaired its culverts, the panel held that Washington's cross-request was barred by sovereign immunity, and Washington did not have standing to assert any treaty rights belonging to the Tribes. Specifically, the panel held that Washington's cross-request for an injunction did not qualify as a claim for recoupment. The panel also held that the United States did not waive its own sovereign immunity by bringing suit on behalf of the Tribes. The panel further held that any violation of the Treaties by the United States violated rights held by the Tribes

rather than the State, and the Tribes did not seek redress against the United States in this proceeding.

The panel held that the district court did not abuse its discretion in enjoining Washington to correct most of its high-priority barrier culverts within seventeen years, and to correct the remainder at the end of their natural life or in the course of a road construction project undertaken for independent reasons. The panel rejected Washington's objections that the injunction was too broad, that the district court did not defer to the State's expertise, that the court did not properly consider costs and equitable principles, that the injunction impermissibly intruded into state government operations, and that the injunction was inconsistent with federalism principles.

Addressing the State of Washington's petition for panel rehearing and for rehearing en banc, the panel rejected Washington's argument that it should have been awarded, as recoupment or set-off, a monetary award from the United States. The panel also rejected Washington's contention that because of the presence of non-state-owned barrier culverts on the same streams as state-owned barrier culverts, the benefits obtained from remediation of state-owned culverts would be insufficient to justify the district court's injunction.

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ORDER

The opinion filed on June 27, 2016 is amended as follows:

At 855 of the published opinion, *U.S. v. Washington*, 827 F.3d 836 (9th Cir. 2016), add the following subheading beneath "C. Washington's Cross-Request":

"1. Injunction."

On the same page, add "for an injunction" following "The district court struck the cross request . . . ".

At 855–56, change the numbering of the subheadings of "Sovereign Immunity" and "Standing" from 1, 2 to a, b.

At 856, just above subsection D, add the following text:

2. Recoupment of Part of Washington's Costs

In its Petition for Panel Rehearing and for Rehearing En Banc, filed after our opinion came down, *see United States v. Washington*, 827 F.3d 836 (9th Cir. 2016), Washington contends that we misconstrued its appeal of the district court's denial of its cross-request. Washington writes in its Petition:

> The State's original [cross-request] sought a variety of remedies, including that the federal government be required to (1) pay part of the cost of replacing state culverts that were designed to federal standards; (2) take actions on federal lands to restore salmon runs; and (3) replace federal culverts in Washington. But on appeal, the State pursued only the first of these remedies.

We did not, and do not, so understand the State's appeal. Contrary to Washington's statement, it did appeal the district court's denial of its cross-request for an injunction requiring the United States to repair or replace the United States' own barrier culverts. It did not appeal a denial of a request that the United States be required to pay part of its costs to repair or replace its culverts.

In the district court, Washington stated in the body of its cross-request that "[t]he United States has a duty to pay all costs incurred by the State to identify

and fix any and all barrier culverts." But in its demand for relief, Washington did not demand any monetary payment from the United States, unless its boilerplate request ("The State of Washington further requests all other relief the Court deems just and equitable") could be deemed such a demand. Not surprisingly, in denying Washington's cross-request, the district court did not discuss a demand for monetary payment from the United States. In its brief to us, Washington writes in the introduction that the district court erred in denying its request to allow the State "to recoup some of the costs of compliance from the United States because it specified the culvert design and caused much of the decline in the salmon runs." But Washington makes no argument in the body of its brief that it should be allowed to recover from the United States any part of the cost to repair or replace its own barrier culverts.

When considering Washington's appeal, we did not understand it to argue that it should have been awarded, as recoupment or set-off, a monetary award from the United States. Given Washington's failure to make this argument in the body of its brief, the argument was waived. *Smith v. Marsh*, 194 F.3d 1045, 1052 (9th Cir. 1999). However, given the vigor with which Washington now makes the argument in its Petition for Rehearing and Rehearing En Banc, we think it appropriate to respond on the merits.

Washington's argument is easily rejected. As recounted above, a claim for recoupment must, *inter alia*, "seek relief of the same kind or nature as the plaintiff's suit." *Berrey*, 439 F.3d at 645. Washington's claim does not satisfy this criterion. The United States, the plaintiff, sought injunctive relief against

Washington. Washington sought a monetary award. These two forms of relief are not "of the same kind or nature."

At 859, just prior to the paragraph beginning, "Witnesses at trial. . .", add the following text:

The State contends that because of the presence of non-state-owned barrier culverts on the same streams as state-owned barrier culverts, the benefit obtained from remediation of state-owned culverts will be insufficient to justify the district court's injunction. The State writes:

> [S]tate-owned culverts are less than 25% of all known barrier culverts, and in some places, non-state culverts outnumber state-owned culverts by a factor of 36 to 1. Any benefit from fixing a state-owned culvert will not be realized if fish are blocked by other culverts in the same stream system.

There are several answers to the State's contention. First, it is true that in calculating whether a state culvert is a barrier culvert, and in determining the priority for requiring remediation, the court's injunction ignores non-state barriers on the same stream. But in so doing, the court followed the practice of the state itself. Paul Sekulich, formerly division manager in the restoration division in the habitat program of the Washington Department of Fish and Wildlife ("WDFW"), testified in the district court:

> Q: When you calculate a priority index number for a [state-owned] culvert, do you account for the presence of other fish passage barriers in a watershed?

> A: . . . When the priority index is calculated, it treats those other barriers as transparent. The reason we do that, we don't know when those other barriers are being corrected. So by treating them as transparent, you do a priority index that looks at potential habitat gain as if all those barriers would be corrected at some point in time.

Washington State law requires that a "dam or other obstruction across or in a stream" be constructed in such a manner as to provide a "durable and efficient fishway" allowing passage of salmon. Wash. Rev. Code § 77.57.030(1). If owners fail to construct or maintain proper fishways, the Director of WDFW may require them do so at their own expense. *Id.* at § 77.57.030(2).

Second, in 2009, on streams where there were both state and non-state barriers, 1,370 of the 1,590 non-state barriers, or almost ninety percent, were upstream of the state barrier culverts. Sixty nine percent of the 220 downstream non-state barriers allowed partial passage of fish. Of the 152 that allowed partial passage, "passability" was 67% for 80 of the barriers and 33% for 72 of them.

Third, the specific example provided by the state is a culvert on the Middle Fork of Wildcat Creek under State Route 8 in Grays Harbor County. The State is correct that there are 36 non-state barriers and only one state barrier culvert on this creek. The State fails to mention, however, that all of the non-state barriers are upstream of the state culvert. Further, it is apparent from the map in the district court record that the nearest non-state barrier is almost a half mile upstream.

No new Petition for Panel Rehearing or Petition for Rehearing en Banc will be entertained. Pending petitions remain pending and need not be renewed.

OPINION

W. FLETCHER, Circuit Judge:

In 1854 and 1855, Indian tribes in the Pacific Northwest entered into a series of treaties, now known as the "Stevens Treaties," negotiated by Isaac I. Stevens, Superintendent of Indian Affairs and Governor of Washington Territory. Under the Stevens Treaties ("Treaties") at issue in this case, the tribes relinquished large swaths of land west of the Cascade Mountains and north of the Columbia River drainage area, including the Puget Sound watershed, the watersheds of the Olympic Peninsula north of the Grays Harbor watershed, and the offshore waters adjacent to those areas (collectively, the "Case Area"), in what is now the State of Washington. In exchange for their land, the tribes were guaranteed a right to off-reservation fishing, in a clause that used essentially identical language in each treaty. The "fishing clause" guaranteed "the right of taking fish, at all usual and accustomed grounds and stations . . . in common with all citizens of the Territory."

In 2001, pursuant to an injunction previously entered in this long-running litigation, twenty-one Indian tribes ("Tribes"), joined by the United States, filed a "Request for Determination" — in effect, a complaint — in the federal district court for the Western District of Washington. The Tribes include the Suquamish Indian Tribe, Jamestown S'Klallam,

Lower Elwha Band of Klallams, Port Gamble Clallam, Nisqually Indian Tribe, Nooksack Tribe, Sauk-Suiattle Tribe, Skokomish Indian Tribe, Squaxin Island Tribe, Stillaguamish Tribe, Upper Skagit Tribe, Tulalip Tribes, Lummi Indian Nation, Quinault Indian Nation, Puyallup Tribe, Hoh Tribe, Confederated Tribes and Bands of the Yakama Indian Nation, Quileute Indian Tribe, Makah Indian Tribe, Swinomish Indian Tribal Community, and the Muckleshoot Indian Tribe. The Tribes contended that Washington State ("Washington" or "the State") had violated, and was continuing to violate, the Treaties by building and maintaining culverts that prevented mature salmon from returning from the sea to their spawning grounds; prevented smolt (juvenile salmon) from moving downstream and out to sea; and prevented very young salmon from moving freely to seek food and escape predators. In 2007, the district court held that in building and maintaining these culverts Washington had caused the size of salmon runs in the Case Area to diminish and that Washington thereby violated its obligation under the Treaties. In 2013, the court issued an injunction ordering Washington to correct its offending culverts.

We affirm the decision of the district court.

I. Historical Background

For over a hundred years, there has been conflict between Washington and the Tribes over fishing rights under the Treaties. We recount here some of the most salient aspects of this history.

When white settlers arrived in the Washington territory in the second half of the nineteenth century, many settled on riparian land and salt-water

shoreline. Even though the majority of these settlers were not themselves fishermen, they blocked access to many of the Tribes' traditional fishing sites. By the end of the century, white commercial fishermen were catching enormous quantities of salmon, first on the Columbia River and then in Puget Sound as well, supplying large-scale canneries.

In 1894, L. T. Erwin, the United States Indian Agent for the Yakimas, complained that whites had blocked access to the Indians' "accustomed fisheries" on the Columbia River: "[I]nch by inch, [the Indians] have been forced back until all the best grounds have been taken up by white men, who now refuse to allow them to fish in common, as the treaty provides." *Report of the Secretary of the Interior, 1894* (3 vols., Washington, D.C., 1894, II, 326). In 1897, D. C. Govan, the Indian Agent for the Tulalips on Puget Sound reported that "the Alaska Packing Company and other cannery companies have practically appropriated all the best fishing grounds at Point Roberts and Village Point, where the Lummi Indians have been in the habit of fishing from time immemorial." *Annual Reports of the Department of the Interior, 1897: Report of the Commissioner of Indian Affairs* (Washington, D.C., 1897, 297). In 1905, Charles Buchanan, the new Indian Agent for the Tulalips, complained, "The tremendous development of the fisheries by traps and by trust methods of consolidation, concentration, and large local development are seriously depleting the natural larders of our Indians and cutting down their main reliance for support and subsistence. Living for them is becoming more precarious year by year." *Annual Reports of the Department of the Interior, 1905: Indian*

Affairs (Washington, D.C., 1906, Part I, 362). During this period, "[t]he superior capital, large-scale methods, and aggressiveness of whites . . . quickly led to their domination of the prime fisheries of the region." Donald L. Parman, *Inconstant Advocacy: The Erosion of Indian Fishing Rights in the Pacific Northwest*, 53 Pacific Hist. Rev. 163, 167 (1984).

The United States Supreme Court first addressed the conflict over fisheries in *United States v. Winans*, 198 U.S. 371 (1905). The Winans brothers had acquired land at a prime Yakima fishing site on the Washington side of the Columbia River. *See* Michael C. Blumm and James Brunberg, *'Not Much Less Necessary . . . Than the Atmosphere They Breathed': Salmon, Indian Treaties, and the Supreme Court — a Centennial Remembrance of* United States v. Winans *and Its Enduring Significance*, 46 Nat. Resources J. 489, 523 (2006). Under an exclusive license from the State, the Winanses operated "fish wheels" at the site. Fish wheels were essentially mechanized dip nets "capable of catching salmon by the ton." *Washington v. Wash. State Commercial Passenger Fishing Vessel Ass'n*, 443 U.S. 658, 679 (1979). The Winanses refused to allow the Yakimas to cross over or to camp on their land in order to fish at the site.

The Yakimas had signed one of the Stevens Treaties in 1855. The United States brought suit against the Winanses on the Yakimas' behalf. The Supreme Court held that the land owned by the Winanses, previously conveyed by patent from the government, was by virtue of the treaty subject to an easement allowing access to the Yakimas' "usual and accustomed" fishing site. The Court held, further, that

the State could not license the Winanses to "construct and use a device which gives them exclusive possession of the fishing places, as it is admitted a fish wheel does." *Winans*, 198 U.S. at 382. *See also Seufort Bros. Co. v. United States*, 249 U.S. 194 (1919) (holding that the Yakimas had rights under the treaty on the Oregon, as well as the Washington, side of the river).

In 1915, Charles Buchanan, still the Indian Agent for the Tulalips, complained to the Washington legislature of the diminished supply of salmon and the harsh application of Washington's fish and game laws against the Indians. He wrote:

> [M]ore recently, the use of large capital, mechanical assistance, numerous great traps, canneries, etc., and other activities allied to the fishery industry, have greatly lessened and depleted the Indians' natural sources of food supply. In addition thereto the stringent and harsh application to Indians of the State game and fish laws have made it still and increasingly precarious for him to procure his natural foods in his natural way.

Rights of the Puget Sound Indians to Game and Fish, 6 Wash. Hist. Quart. 109, 110 (Apr. 1915).

The next year, the Washington Supreme Court upheld the sort of "stringent and harsh application . . . of game and fish laws" of which Buchanan complained. In *State v. Towessnute*, 154 P. 805, 806 (Wash. 1916), a member of the Yakima Nation named Towessnute was charged with off-reservation fishing without a license in a manner forbidden by state law. Towessnute defended on the ground that he was

fishing in the traditional manner at one the Yakimas' usual and accustomed places, and that he was entitled to do so under the treaty at issue in *Winans*. *Id.* Characterizing the treaty as a "dubious document," *id.*, the Washington Supreme Court rejected the defense:

> The premise of Indian sovereignty we reject. The treaty is not to be interpreted in that light. At no time did our ancestors in getting title to this continent, ever regard the aborigines as other than mere occupants . . . of the soil.

Id. at 807. The Court read the Supreme Court's holding in *Winans* as requiring easements across private land, but at the same time as endorsing the authority of the state, through the exercise of its "police power," to enact regulatory laws restricting Indian fishing rights. *Id.* at 809. *See also State v. Alexis*, 154 P. 810 (Wash. 1916) (holding the same under the Stevens Treaty with the Lummi Tribe in Puget Sound).

Much traditional Indian fishing was done with traps and nets in rivers, catching mature salmon when they returned to their native habitat to spawn. White commercial fishermen, by contrast, often fished in salt water, using equipment that most Indians could not afford and catching both mature and immature salmon. Beginning in the early 1900s, the State regulated the salmon fishery in Puget Sound in such a way that Indians who fished in rivers were increasingly unable to exercise their off-reservation treaty right to fish in their usual and accustomed places and in their traditional manner. For example, in 1907 the Washington legislature forbade all off-

reservation fishing above the tide line — by whites and Indians alike — except by hook and line. Wash. Sess. Laws Ch. 247, Sec. 2 (1907).

In 1934, Washington voters adopted Initiative 77, a measure that limited off-reservation commercial fishing to certain portions of Puget Sound and banned the use of fixed gear, such as the "pound net, fish trap, fish wheel, scow fish wheel, set net, or any fixed appliance," to catch salmonids. Init. Measure No. 77, State of Wash. Voting Pamphlet 5 (Nov. 6, 1934). According to a report commissioned by the federal Bureau of Indian Affairs, the passage of Initiative 77 "constituted a serious blow to the Indian fishing being carried on at usual and accustomed grounds":

> [D]ue to their extremely limited financial means, [the Indians'] gear necessarily must be obtainable at a minimum of expense. Generally speaking, the Indians are unable to finance the purchase of other more expensive gear and operating equipment, the use of which was not entirely outlawed. In order to continue to provide the necessities of life, the Indians, as a result of the above conservation statute, were literally forced to confine their fishing with such gear to reservation waters. The fact that such was the situation led to considerable agitation in the Pacific Northwest and especially in the [S]tate of Washington looking to the further curtailment of the Indians' commercial fishery.

Edward Swindell, *Report on Source, Nature and Extent of Fishing, Hunting, and Miscellaneous*

Rights of Certain Indian Tribes in Washington and Oregon 95 (1942).

In subsequent years, the State continued to assert authority to regulate off-reservation fishing by Indians, including authority to require purchase of fishing licences. In 1939, Sampson Tulee, a Yakima Indian, was criminally charged with off-reservation commercial fishing with a dip net on the Columbia River without a state license. Citing *Towessnute* and *Alexis*, the Washington Supreme Court affirmed the conviction as a valid exercise of the State's police powers. *Washington v. Tulee*, 109 P.2d 280, 287 (Wash. 1941) ("Washington enjoys to the full the exercise of its police powers."). The United States Supreme Court reversed. The Court held that while the State had the power, consistent with the treaty, to regulate fishing by both Indians and non-Indians to the degree "necessary for the conservation of fish," the exaction of a license fee "cannot be reconciled with a fair construction of the treaty." *Tulee v. Washington*, 315 U.S. 681, 684–85 (1942).

After *Tulee*, state officials continued to enforce restrictions on off-reservation fishing by Puget Sound Indians, even when that fishing was conducted at the Indians' usual and accustomed places:

> Over the years the state fish and game authorities have asserted that Indian treaty-protected fishing exists only on the reservations, and have acted to enforce this position. Injunctions against off-reservation fishing by Indians of the Nisqually, Puyallup, and Muckleshoot tribes have been obtained and enforcement actions carried out even while the

> injunctions are being contested in the courts. Arrests of fishermen and confiscation of gear have seriously hampered the Indians. Valuable gear held by the state as evidence can effectively put the fisherman out of business during several runs of fish, even though he may eventually win his case.

Walter Taylor, *Uncommon Controversy: Fishing Rights of the Muckleshoot, Puyallup, and Nisqually Indians* 60 (1970). As a result of the State's hostility to off-reservation fishing, the Indians' share of the overall catch was relatively small. For example, from 1958 through 1967, the shares of the total salmon catch in Puget Sound were 6% for Indian fishing, 8.5% for sports fishing, and 85.5% for commercial fishing. *Id.* at 123, 126.

Beginning in the early 1960s, the State substantially increased its enforcement against off-reservation fishing in Puget Sound. *See generally* Bradley G. Shreve, *"From Time Immemorial": The Fish-in Movement and the Rise of Intertribal Activism*, 78 Pacific Hist. Rev. 403, 411–15 (2009). In response, in 1964 the National Indian Youth Council organized a large demonstration in Olympia to demand that the State acknowledge their treaty fishing rights. *See Uncommon Controversy*, *supra*, at 107–13. During the 1960s and early 1970s, in what came to be called the "fish wars," some Indians fished openly and without licenses in "fish-ins" to bring attention to the State's prohibitions against off-reservation fishing. State reaction to the "fish-ins" sometimes led to violence. *See, e.g.*, Associated Press, "Shots Fired, 60 Arrested in Indian-Fishing Showdown," *Seattle Times*, Sept. 9, 1970; Alex Tizon, "The Boldt Decision / 25 Years —

The Fish Tale That Changed History," *Seattle Times*, Feb. 7, 1999 (describing the State's "military-style campaign," employing "surveillance planes, high-powered boats and radio communications," as well as "tear gas," "billy clubs," and "guns").

In 1970, in an effort to resolve the persistent conflict between the State and the Indians, the United States brought suit against the State on behalf of the Tribes. The dispute now before us is part of that litigation.

II. Anadromous Fisheries and Washington's Barrier Culverts

Anadromous fish, such as salmon, hatch and spend their early lives in fresh water, migrate to the ocean to mature, and return to their waters of origin to spawn. Washington is home to several anadromous fisheries, of which the salmon fishery is by far the most important. Before the arrival of white settlers, returning salmon were abundant in the streams and rivers of the Pacific Northwest. Present-day Indian tribes in the Pacific Northwest eat salmon as an important part of their diet, use salmon in religious and cultural ceremonies, and fish for salmon commercially.

Roads often cross streams that salmon and other anadromous fish use for spawning. Road builders construct culverts to allow the streams to flow underneath roads, but many culverts do not allow fish to pass easily. Sometimes they do not allow fish passage at all. A "barrier culvert" is a culvert that inhibits or prevents fish passage. Road builders can avoid constructing barrier culverts by building roads away from streams, by building bridges that entirely

span streams, or by building culverts that allow unobstructed fish passage.

Four state agencies are responsible for building and managing Washington's roads and the culverts that pass under them: Washington State Department of Transportation ("WSDOT"), Washington State Department of Natural Resources ("WSDNR"), Washington State Parks and Recreation Commission ("State Parks"), and Washington Department of Fisheries and Wildlife ("WDFW"). Of these, WSDOT, the agency responsible for Washington's highways, builds and maintains by far the most roads and culverts.

III. Earlier Proceedings

In 1970, the United States, on its own behalf and as trustee for Pacific Northwest tribes, sued Washington in federal court in the Western District of Washington. The United States sought declaratory and injunctive relief based on the fishing clause of the Treaties. *United States v. State of Washington*, 384 F. Supp. 312, 327–28 (W.D. Wash. 1974) ("*Washington I*"). In what has come to be known as the "Boldt decision," District Judge George H. Boldt divided the case into two phases. Phase I was to determine what portion, if any, of annually harvestable fish were guaranteed to the Tribes by the fishing clause. Phase II was to determine whether the fishing clause extends to hatchery fish, and whether it requires Washington to prevent environmental degradation within the Case Area.

In Phase I, Judge Boldt held that the phrase "the right of taking fish . . . in common with all citizens" gives the Tribes the right to take up to fifty

percent of the harvestable fish in the Case Area, subject to the right of non-treaty fishers to do the same. *Id.* at 343. The Supreme Court affirmed in *Washington v. Washington State Commercial Passenger Fishing Vessel Ass'n*, 443 U.S. 658 (1979) ("*Fishing Vessel*"). The Court specified that fifty percent was a ceiling rather than a floor, and that the fishing clause guaranteed "so much as, but no more than, is necessary to provide the Indians with a livelihood—that is to say, a moderate living." *Id.* at 686. In accordance with its standard practice of interpreting Indian treaties in favor of the tribes, the Court interpreted the clause as promising protection for the tribes' supply of fish, not merely their share of the fish. The Court wrote:

> Governor Stevens and his associates were well aware of the "sense" in which the Indians were likely to view assurances regarding their fishing rights. During the negotiations, the vital importance of the fish to the Indians was repeatedly emphasized by both sides, and the Governor's promises that the treaties would protect that source of food and commerce were crucial in obtaining the Indians' assent.

Id. at 676.

In 1976, the United States initiated Phase II of the litigation, asking for a declaratory judgment clarifying the Tribes' rights with respect to the "hatchery fish" issue and to the "environmental" issue. *United States v. State of Washington*, 506 F. Supp. 187, 194 (W.D. Wash. 1980) ("*Washington II*"). The district court held, first, that hatchery fish must be included in determining the share of fish to which the

Tribes are entitled. *Id.* at 197. It held, second, that the Tribes' right to "a sufficient quantity of fish to satisfy their moderate living needs" entailed a "right to have the fishery habitat protected from man-made despoliation." *Id.* at 208, 203.

Sitting en banc, we affirmed in part and vacated in part. *United States v. State of Washington*, 759 F.2d 1353 (9th Cir. 1985) (en banc) ("*Washington III*"). We affirmed the district court's decision that hatchery fish must be included in determining the share of salmon to be allocated to the Tribes: .

> The hatchery programs have served a mitigating function since their inception in 1895. They are designed essentially to replace natural fish lost to non-Indian degradation of the habitat and commercialization of the fishing industry. Under these circumstances, it is only just to consider such replacement fish as subject to treaty allocation. For the tribes to bear the full burden of the decline caused by their non-Indian neighbors without sharing the replacement achieved through the hatcheries, would be an inequity and inconsistent with the Treaty.

Id. at 1360 (citations omitted).

We vacated the court's decision on the environmental issue. We held that the issue was too broad and varied to be resolved in a general and undifferentiated fashion, and that the issue of human-caused environmental degradation must be resolved in the context of particularized disputes. We wrote:

> We choose to rest our decision in this case on the proposition that issuance of the declaratory judgment on the environmental issue is contrary to the exercise of sound judicial discretion. The legal standards that will govern the State's precise obligations and duties under the treaty with respect to the myriad State actions that may affect the environment of the treaty area will depend for their definition and articulation upon concrete facts which underlie a dispute in a particular case.

Id. at 1357. Although we vacated the district court's decision with respect to the environmental issue, we made clear that we were not absolving Washington of environmental obligations under the fishing clause. We concluded the section of our opinion devoted to the environmental issue by emphasizing that Washington "is bound by the treaty." *Id.*

Judge Boldt's 1974 decision authorized the parties to invoke the continuing jurisdiction of the district court to resolve disputes "concerning the subject matter of this case." *Washington I*, 384 F. Supp. at 419; *see also United States v. Washington*, 573 F.3d 701, 705 (9th Cir. 2009). For such disputes, the court directed the parties to "file with the clerk of this court . . . a 'Request for Determination' setting forth the factual nature of the request and any legal authorities and argument which may assist the court, along with a statement that unsuccessful efforts have been made by the parties to resolve the matter, whether a hearing is required, and any factors which bear on the urgency of the request." *Washington I*, 384 F. Supp. at 419.

In 2001, the Tribes filed a Request for Determination ("Request"), seeking "to enforce a duty upon the State of Washington to refrain from constructing and maintaining culverts under State roads that degrade fish habitat so that adult fish production is reduced." The Tribes sought a permanent injunction from the district court "requiring Washington to identify and then to open culverts under state roads and highways that obstruct fish passage, for fish runs returning to or passing through the usual and accustomed grounds and stations of the plaintiff tribes."

The United States joined the Tribes' Request, seeking a declaration from the court that:

> The right of taking fish secured to the plaintiff tribes in the Stevens Treaties imposes a duty upon the State of Washington to refrain from degrading the fishery resource through the construction or maintenance of culverts under State owned roads and highways in a way that deprives the Tribes of a moderate living from the fishery.
>
> The State has violated and continues to violate the duty owed to the plaintiff tribes under the Stevens Treaties through the operation and maintenance of culverts which reduce the number of fish that would otherwise return to or pass through the Tribes' usual and accustomed fishing grounds and stations to such a degree as would deprive the Tribes of the ability to earn a moderate living from the fishery.

The United States sought a permanent injunction that would require Washington "within five years of the date of judgment (or such other time period as the Court deems necessary and just)" to "repair, retrofit, maintain, or replace" culverts that "degrade appreciably" the passage of fish.

Washington and the defendant state agencies (collectively "Washington" or "the State") answered by declaring that there is "no treaty-based right or duty of fish habitat protection as described" in the Request. In the alternative, Washington emphasized that some of its barrier culverts pass under highways funded in part by the United States, and that these highways were "designed according to standards set or approved" by the Federal Highway Administration, leading Washington to believe that its culverts complied with the Treaties. Further, Washington asserted that the United States and the Tribes have built and maintained barrier culverts on their own lands within the Case Area. Washington asserted that the United States "has a duty to take action on its own lands so as not to place on the State of Washington an unfair burden of complying with any such treaty-based duty."

Washington also made a "cross-request" — in effect, a counterclaim — against the United States seeking a declaration that the United States has violated its own duty to the Tribes under the Treaties, and seeking an injunction that would require the United States to modify or replace its own barrier culverts.

The district court dismissed the cross- request on the ground that the United States had not waived

its sovereign immunity. The court later denied Washington's request to file an amended cross-request on the additional ground that Washington did not have standing. It wrote, "[T]he State may not assert a treaty-based claim on behalf of the Tribes. . . . The decision as whether and when to assert that claim against the United States is for the Tribes alone."

The district court granted summary judgment in favor of the Tribes and the United States, concluding that the dispute involved the kind of "concrete facts" that were lacking in *Washington III*. The court held, first, that "the right of taking fish, secured to the Tribes in the Stevens Treaties, imposes a duty upon [Washington] to refrain from building or operating culverts under State-maintained roads that hinder fish passage and thereby diminish the number of fish that would otherwise be available for Tribal harvest." It held, second, that "the State of Washington currently owns and operates culverts that violate this duty."

The district court conducted a bench trial in 2009 and 2010 to determine the appropriate remedy. After failed efforts to reach a settlement, the court issued both a Memorandum and Decision and a Permanent Injunction. In its Memorandum and Decision, issued in 2013, the court found that Governor Stevens had assured the Tribes that they would have an adequate supply of salmon forever. The court wrote:

> During the negotiations leading up to the signing of the treaties, Governor Isaac Stevens and other negotiators assured the Tribes of

> their continued access to their usual fisheries. *Governor Stevens assured the Tribes that even after they ceded huge quantities of land, they would still be able to feed themselves and their families forever. As Governor Stevens stated, "I want that you shall not have simply food and drink now but that you may have them forever."*

(Emphasis added.)

The court found that salmon stocks in the Case Area have declined "alarmingly" since the Treaties were signed, and "dramatically" since 1985. The court wrote, "A primary cause of this decline is habitat degradation, both in breeding habitat (freshwater) and feeding habitat (freshwater and marine areas) . . . . One cause of the degradation of salmon habitat is . . . culverts which do not allow the free passage of both adult and juvenile salmon upstream and downstream." The "consequent reduction in tribal harvests has damaged tribal economies, has left individual tribal members unable to earn a living by fishing, and has caused cultural and social harm to the Tribes in addition to the economic harm."

The district court entered a Permanent Injunction on the same day it issued its Memorandum and Decision. The court ordered the State, in consultation with the Tribes and the United States, to prepare within six months a current list of all state-owned barrier culverts within the Case Area. It ordered WSDNR, State Parks, and WDFW to correct all their barrier culverts on the list by the end of October 2016. It ordered WSDOT to correct many of its barrier culverts within seventeen years, and to correct the remainder only at the end of the culverts'

natural life or in connection with independently undertaken highway projects. We provide a more detailed description of the injunction below.

IV. Standard of Review

We review de novo dismissals for want of jurisdiction under Rule 12(b)(1) and for failure to state a claim under Rule 12(b)(6). *Rhoades v. Avon Products, Inc.*, 504 F.3d 1151, 1156 (9th Cir. 2007). We also review de novo a grant or denial of summary judgment. *Scott v. Pasadena Unified Sch. Dist.*, 306 F.3d 646, 652 (9th Cir. 2002). We review permanent injunctions under three standards: we review factual findings for clear error, legal conclusions de novo, and the scope of the injunction for abuse of discretion. *Id.* at 653.

V. Discussion

Washington objects to the decision of the district court on a number of grounds. It objects to the court's interpretation of the Stevens Treaties, contending that it has no treaty-based duty to refrain from building and maintaining barrier culverts; to the overruling of its waiver defense; to the dismissal of its cross-request against the United States; and to the injunction. We take the State's objections in turn.

A. Washington's Duty under the Treaties

The fishing clause of the Stevens Treaties guarantees to the Tribes a right to engage in off-reservation fishing. It provides, in its entirety:

> The right of taking fish, at all usual and accustomed grounds and stations, is further secured to said Indians, in common with all citizens of the Territory, and of erecting

> temporary houses for the purpose of curing, together with the privilege of hunting, gathering roots and berries, and pasturing their horses on open and unclaimed lands: *Provided, however,* That they shall not take shell fish from any beds staked or cultivated by citizens.

Fishing Vessel, 443 U.S. at 674 (emphasis in original). Washington concedes that the clause guarantees to the Tribes the right to take up to fifty percent of the fish available for harvest, but it contends that the clause imposes no obligation on the State to ensure that any fish will, in fact, be available.

In its brief to us, Washington denies any treaty-based duty to avoid blocking salmon-bearing streams:

> [T]he Tribes here argue for a treaty right that finds no basis in the plain language or historical interpretation of the treaties. On its face, the right of taking fish in common with all citizens does not include a right to prevent the State from making land use decisions that could incidentally impact fish. Rather, such an interpretation is contrary to the treaties' principal purpose of opening up the region to settlement.

Brief at 27–28. At oral argument, Washington even more forthrightly denied any treaty-based duty. Washington contended that it has the right, consistent with the Treaties, to block every salmon-bearing stream feeding into Puget Sound:

> The Court: Would the State have the right, consistent with the treaty, to dam every salmon stream into Puget Sound?
>
> Answer: Your honor, we would never and could never do that. . . .
>
> The Court: . . . I'm asking a different question. Would you have the right to do that under the treaty?
>
> Answer: Your honor, the treaty would not prohibit that[.]
>
> The Court: So, let me make sure I understand your answer. You're saying, consistent with the treaties that Governor Stevens entered into with the Tribes, you could block every salmon stream in the Sound?
>
> Answer: Your honor, the treaties would not prohibit that[.]

Oral Argument at 1:07–1:45, October 16, 2015.

The State misconstrues the Treaties.

We have long construed treaties between the United States and Indian tribes in favor of the Indians. Chief Justice Marshall wrote in the third case of the Marshall Trilogy, "The language used in treaties with the Indians should never be construed to their prejudice." *Worcester v. Georgia*, 31 U.S. 515, 582 (1832). "If words be made use of which are susceptible of a more extended meaning than their plain import, as connected with the tenor of the treaty, they should be considered as used only in the latter sense." *Id.*

Negotiations for the Stevens Treaties were conducted in the Chinook language, a trading jargon

of only about 300 words. *Fishing Vessel*, 443 U.S. at 667 n.10. The Treaties were written in English, a language the Indians could neither read nor write. Because treaty negotiations with Indians were conducted by "representatives skilled in diplomacy," because negotiators representing the United States were "assisted by . . . interpreter[s] employed by themselves," because the treaties were "drawn up by [the negotiators] and in their own language," and because the "only knowledge of the terms in which the treaty is framed is that imparted to [the Indians] by the interpreter employed by the United States," a "treaty must . . . be construed, not according to the technical meaning of its words to learned lawyers, but in the sense in which they would naturally be understood by the Indians." *Jones v. Meehan*, 175 U.S. 1, 11 (1899). "[W]e will construe a treaty with the Indians as [they] understood it, and as justice and reason demand, in all cases where power is exerted by the strong over those to whom they owe care and protection, and counterpoise the inequality by the superior justice which looks only to the substance of the right, without regard to technical rules." *United States v. Winans*, 198 U.S. 371, 380 (1905) (internal quotation marks omitted). "[W]e look beyond the written words to the larger context that frames the Treaty, including the history of the treaty, the negotiations, and the practical construction adopted by the parties." *Minnesota v. Mille Lacs Band of Chippewa Indians*, 526 U.S. 172, 196 (1999) (internal quotation marks omitted).

The Supreme Court has interpreted the Stevens Treaties on several occasions. In affirming Judge Boldt's decision, the Court wrote:

> [I]t is the intention of the parties, and not solely that of the superior side, that must control any attempt to interpret the treaties. When Indians are involved, this Court has long given special meaning to this rule. It has held that the United States, as the party with the presumptively superior negotiating skills and superior knowledge of the language in which the treaty is recorded, has a responsibility to avoid taking advantage of the other side. "[T]he treaty must therefore be construed, not according to the technical meaning of its words to learned lawyers, but in the sense in which they would naturally be understood by the Indians." *Jones v. Meehan*, 175 U.S. 1, 11. This rule, in fact, has thrice been explicitly relied on by the Court in broadly interpreting these very treaties in the Indians' favor. *Tulee v. Washington*, 315 U.S. 681 [1947]; *Seufort Bros. Co. v. United States*, 249 U.S. 194 [1919]; *United States v. Winans*, 198 U.S. 371 [1905]. *See also Washington v. Yakima Indian Nation*, 439 U.S. 463, 484 [1979].

Fishing Vessel, 443 U.S. at 675–76.

Washington has a remarkably one-sided view of the Treaties. In its brief, Washington characterizes the "treaties' principal purpose" as "opening up the region to settlement." Brief at 29. Opening up the Northwest for white settlement was indeed the principal purpose of the United States. But it was most certainly not the principal purpose of the Indians. Their principal purpose was to secure a means of supporting themselves once the Treaties took effect.

Salmon were a central concern. An adequate supply of salmon was "not much less necessary to the existence of the Indians than the atmosphere they breathed." *Winans*, 198 U.S. at 381. Richard White, an expert on the history of the American West and Professor of American History at Stanford University, wrote in a declaration filed in the district court that, during the negotiations for the Point-No-Point Treaty, a Skokomish Indian worried aloud about "how they were to feed themselves once they ceded so much land to the whites." Professor White wrote, to the same effect, that during negotiations at Neah Bay, Makah Indians "raised questions about the role that fisheries were to play in their future." In response to these concerns, Governor Stevens repeatedly assured the Indians that there always would be an adequate supply of fish. Professor White wrote that Stevens told the Indians during negotiations for the Point Elliott Treaty, "I want that you shall not have simply food and drink now but that you may have them forever." During negotiations for the Point-No-Point Treaty, Stevens said, "This paper is such as a man would give to his children and I will tell you why. This paper gives you a home. Does not a father give his children a home? . . . This paper secures your fish. Does not a father give food to his children?" *Fishing Vessel*, 443 U.S. at 667 n.11 (ellipsis in original).

The Indians did not understand the Treaties to promise that they would have access to their usual and accustomed fishing places, but with a qualification that would allow the government to diminish or destroy the fish runs. Governor Stevens did not make, and the Indians did not understand him to make, such a cynical and

disingenuous promise. The Indians reasonably understood Governor Stevens to promise not only that they would have access to their usual and accustomed fishing places, but also that there would be fish sufficient to sustain them. They reasonably understood that they would have, in Stevens' words, "food and drink . . . forever." As the Supreme Court wrote in *Fishing Vessels*:

> Governor Stevens and his associates were well aware of the "sense" in which the Indians were likely to view assurances regarding their fishing rights. During the negotiations, the vital importance of the fish to the Indians was repeatedly emphasized by both sides, and the Governor's promises that the treaties would *protect that source of food and commerce* were crucial in obtaining the Indians' assent. It is absolutely clear, as Governor Stevens himself said, that neither he nor the Indians intended that the latter should be excluded from their ancient fisheries, and it is accordingly inconceivable that either party deliberately agreed to authorize future settlers to crowd the Indians out of any *meaningful use* of their accustomed places to fish.

Id. at 676–77 (citations and internal quotation marks omitted) (emphases added).

Even if Governor Stevens had not explicitly promised that "this paper secures your fish," and that there would be food "forever," we would infer such a promise. In *Winters v. United States*, 207 U.S. 564 (1908), the treaty creating the Fort Belknap Reservation in Montana did not include an explicit

reservation of water for use on the reserved lands, but the Supreme Court inferred a reservation of water sufficient to support the tribe. The purpose of the treaty was to reserve land on which the Indians could become farmers. Without a reservation of water, the "lands were arid, and . . . practically valueless." *Id.* at 576. "[B]etween two inferences, one of which would support the purpose of the agreement and the other impair or defeat it," the Court chose the former. *Id.* at 577.

Similarly, in *United States v. Adair*, 723 F.2d 1394 (9th Cir. 1983), the Klamath Tribe in Oregon had entered into an 1854 treaty under which it relinquished 12 million acres, reserving for itself approximately 800,000 acres. The treaty promised that the tribe would have the right to "hunt, fish, and gather on their reservation," *id.* at 1398, but contained no explicit reservation of water rights. A prime hunting and fishing area on the reservation was the Klamath Marsh, whose suitability for hunting and fishing depended on a flow of water from the Williamson River. A primary purpose of the treaty was to "secure to the Tribe a continuation of its traditional hunting and fishing" way of living. *Id.* at 1409. Because game and fish at the Klamath Marsh depended on a continual flow of water, the treaty's purpose would have been defeated without that flow. In order to "support the purpose of the agreement," *Winters*, 207 U.S. at 577, we inferred a promise of water sufficient to ensure an adequate supply of game and fish. *Adair*, 723 F.2d at 1411.

Thus, even if Governor Stevens had made no explicit promise, we would infer, as in *Winters* and *Adair*, a promise to "support the purpose" of the

Treaties. That is, even in the absence of an explicit promise, we would infer a promise that the number of fish would always be sufficient to provide a "moderate living" to the Tribes. *Fishing Vessel*, 443 U.S. at 686. Just as the land on the Belknap Reservation would have been worthless without water to irrigate the arid land, and just as the right to hunt and fish on the Klamath Marsh would have been worthless without water to provide habitat for game and fish, the Tribes' right of access to their usual and accustomed fishing places would be worthless without harvestable fish.

In *Washington III*, we vacated the district court's declaration of a broad and undifferentiated obligation to prevent environmental degradation. We did not dispute that the State had environmental obligations, but, in the exercise of discretion under the Declaratory Judgment Act, we declined to sustain the sweeping declaratory judgment issued by the district court. We wrote, "The legal standards that will govern the State's precise obligations and duties under the treaty with respect to the myriad State actions that may affect the environment of the treaty area will depend for their definition and articulation upon concrete facts which underlie a dispute in a particular case." *Washington III*, 759 F.2d at 1357.

We concluded:

> The State of Washington is bound by the treaty. If the State acts for the primary purpose or object of affecting or regulating the fish supply or catch in noncompliance with the treaty as interpreted by past decisions, it will be subject to immediate correction and remedial action by the courts. In other instances, the measure of

> the State's obligation will depend for its precise legal formulation on all of the facts presented by a particular dispute.

Id. There is no allegation in this case that in building and maintaining its barrier culverts the State has acted "for the primary purpose or object of affecting or regulating the fish supply or catch in noncompliance with the treaty." The consequence of building and maintaining the barrier culverts has been to diminish the supply of fish, but this consequence was not the State's "primary purpose or object." The "measure of the State's obligation" therefore depends "on all the facts presented" in the "particular dispute" now before us.

The facts presented in the district court establish that Washington has acted affirmatively to build and maintain barrier culverts under its roads. The State's barrier culverts within the Case Area block approximately 1,000 linear miles of streams suitable for salmon habitat, comprising almost 5 million square meters. If these culverts were replaced or modified to allow free passage of fish, several hundred thousand additional mature salmon would be produced every year. Many of these mature salmon would be available to the Tribes for harvest.

Salmon now available for harvest are not sufficient to provide a "moderate living" to the Tribes. *Fishing Vessel*, 443 U.S. at 686. The district court found that "[t]he reduced abundance of salmon and the consequent reduction in tribal harvests has damaged tribal economies, has left individual tribal members unable to earn a living by fishing, and has caused cultural and social harm to the Tribes in

addition to the economic harm." The court found, further, that "[m]any members of the Tribes would engage in more commercial and subsistence salmon fisheries if more fish were available."

We therefore conclude that in building and maintaining barrier culverts within the Case Area, Washington has violated, and is continuing to violate, its obligation to the Tribes under the Treaties.

B. Waiver by the United States

In the district court, Washington asserted a defense of "waiver and/or estoppel" based on action and inaction by the United States that, according to Washington, led the State to believe that its barrier culverts did not violate the Treaties. On appeal, Washington has dropped its estoppel argument, pressing only its waiver argument.

Washington alleged in the district court that WSDNR had developed, in consultation with the United States, a 1999 "Forest and Fish Report" that contemplated a fifteen-year schedule for "remediation of fish problems on forest roads" under the control of WSDNR. Washington alleged that it "reasonably concluded that by approving or failing to object to the State's 15-year remediation schedule for forest roads, the NMFS [National Marine Fisheries Service] had determined that the schedule satisfied any treaty obligation." Washington also alleged, with respect to "many" of the culverts under the control of WSDOT, that the culverts are "in highways funded in part by the United States," and that "[t]hese highways were designed according to standards set or approved by the Federal Highway Administration (FHWA) and its predecessors." Washington alleged that it "reasonably

concluded that by approving or failing to object to the State's culvert design and maintenance, the FHWA had determined that the design and maintenance satisfied any treaty obligation." Washington further alleged that the Army Corps of Engineers, in administering the Clean Water Act, and the NMFS and U.S. Fish & Wildlife Service, in administering the Endangered Species Act, issued permits to, or failed to object to, WSDOT culverts, and that Washington reasonably relied on their action and inaction to conclude that it had satisfied any treaty obligations.

The United States may abrogate treaties with Indian tribes, just as it may abrogate treaties with fully sovereign nations. However, it may abrogate a treaty with an Indian tribe only by an Act of Congress that "clearly express[es an] intent to do so." *Minnesota v. Mille Lacs Band of Chippewa Indians*, 526 U.S. 172, 202 (1999). Congress has not abrogated the Stevens Treaties. So long as this is so, the Tribes' rights under the fishing clause remain valid and enforceable. The United States, as trustee for the Tribes, may bring suit on their behalf to enforce the Tribes' rights, but the rights belong to the Tribes.

The United States cannot, based on laches or estoppel, diminish or render unenforceable otherwise valid Indian treaty rights. *See, e.g., Cramer v. United States*, 261 U.S. 219, 234 (1923) (where Indians had treaty rights to land, leasing of the land to a non-Indian defendant "by agents of the government was . . . unauthorized and could not bind the government; much less could it deprive the Indians of their rights"); *United States v. Washington*, 157 F.3d 630, 649 (9th Cir. 1998) ("[L]aches or estoppel is not available to defeat Indian treaty rights.") (quoting *Swim v.*

Bergland, 696 F.2d 712, 718 (9th Cir. 1983)); and *United States v. Ahtanum Irrigation Dist.*, 236 F.2d 321, 334 (9th Cir. 1956) ("No defense of laches or estoppel is available to the defendants here for the Government[,] as trustee for the Indian Tribe, is not subject to those defenses."). The same is true for waiver. Because the treaty rights belong to the Tribes rather than the United States, it is not the prerogative of the United States to waive them.

Washington argues the above line of cases has been "called in doubt" by *City of Sherrill v. Oneida Indian Nation of N.Y.*, 544 U.S. 197 (2005). Brief at 42. We disagree. Suit was brought in *Sherrill* by the Oneida Indian Nation ("OIN"), whose lands once comprised six million acres in central New York State. In 1788, in the Treaty of Fort Schuyler, OIN reserved 300,000 acres of its tribal land and ceded the rest to New York. Two years later, Congress passed the Indians Trade and Intercourse Act (the "Nonintercourse Act"), which required federal approval for the sale of tribal land. New York largely ignored the law and in the following years obtained large quantities of tribal land through treaties with OIN. The United States did little to stop these transactions; indeed, its agents took an active role in encouraging Oneidas to move west. By 1838, Oneidas had sold all but 5,000 acres of their reserved lands. By 1920, their ownership had dwindled to 32 acres.

In 1985, the Supreme Court held that the sale of OIN lands had been unlawful, and that the OIN was entitled to monetary compensation for these sales. *See Cnty. of Oneida v. Oneida Indian Nation of N.Y. State*, 470 U.S. 226 (1985). In 1997 and 1998, OIN purchased on the open market two parcels of

land, located within the boundaries of its ancestral reservation, that had been sold to a non-Indian in 1807. OIN claimed tribal sovereign status for the purchased parcels, including the sovereign right to be free of local property taxes. In *Sherrill*, the Court held against OIN, writing that "the Tribe cannot unilaterally revive its ancient sovereignty, in whole or in part, over the parcels at issue." 544 U.S. at 203.

The case before us is radically different from *Sherrill*. The question in our case is not whether, as in *Sherrill*, a tribe has sovereignty over land within the boundaries of an abandoned reservation. The Tribes have not abandoned their reservations. Nor is the question whether, as in *Sherrill*, the Tribes have acted to relinquish their rights under the Treaties. The Tribes have done nothing to authorize the State to construct and maintain barrier culverts. Nor, finally, is the question whether, as in *Sherrill*, to allow the revival of disputes or claims that have long been left dormant. As described above, Washington and the Tribes have been in a more or less continuous state of conflict over treaty-based fishing rights for over one hundred years.

C. Washington's Cross-Request

1. Injunction

Washington asserted a "cross-request" (in effect, a counterclaim) based on the United States' construction and maintenance of barrier culverts on its own land. Washington contended that if its barrier culverts violate the Treaties, so too do the United States' barrier culverts. Washington contended that an injunction requiring it to correct its barrier culverts, while leaving undisturbed those of the

United States, imposed a disproportionate and therefore unfair burden on the State. Washington sought an injunction that would require the United States "to fix and thereafter maintain all culverts built or maintained by [the United States] . . . before the State of Washington is required to repair or remove any of its culverts."

The district court struck the cross-request for an injunction and subsequently denied Washington's motion to amend. It did so on two grounds. First, it held that Washington's cross-request was barred by sovereign immunity. Second, it held that Washington did not have standing to assert treaty rights belonging to the Tribes. We agree with both grounds.

a. Sovereign Immunity

The United States enjoys sovereign immunity from unconsented suits. However, when the United States files suit, consent to counterclaims seeking offset or recoupment will be inferred. *United States v. Agnew*, 423 F.2d 513, 514 (9th Cir. 1970). Washington contends that the injunction it seeks against the United States is "recoupment." We disagree.

The Tenth Circuit has set forth three criteria that must be satisfied for a recoupment claim:

> To constitute a claim in recoupment, a defendant's claim must (1) arise from the same transaction or occurrence as the plaintiff's suit; (2) seek relief of the same kind or nature as the plaintiff's suit; and (3) seek an amount not in excess of the plaintiff's claim.

Berrey v. Asarco Inc., 439 F.3d 636, 645 (10th Cir. 2006); *see Fed. Deposit Insur. Corp. v. Hulsey*, 22 F.3d

1472, 1487 (10th Cir. 1994). We adopt these criteria as our own, and make explicit that the remedy (the "amount") sought by the United States and by the defendant in recoupment must be monetary.

It is implicit in the use of the word "amount" in *Berrey*'s third criterion that a recoupment claim is a monetary claim. A claim for recoupment, if successful, can reduce or eliminate the amount of money that would otherwise be awarded to the plaintiff. It cannot result in an affirmative monetary judgment in favor of the party asserting the claim: "Although a counterclaim may be asserted against a sovereign by way of set off or recoupment to defeat or diminish the sovereign's recovery, no affirmative relief may be given against a sovereign in the absence of consent." *Agnew*, 423 F.2d at 514; *see also United States v. U.S. Fid. & Guar. Co.*, 309 U.S. 506, 511 (1940) ("[A] defendant may, without statutory authority, recoup on a counterclaim an amount equal to the principal claim."); *Black's Law Dictionary* 1466 (10th ed. 2009) ("Recoupment: 1. The getting back or regaining of something, esp. expenses. 2. The withholding, for equitable reasons, of all or part of something that is due. . . . 3. Reduction of a plaintiff's damages because of a demand by the defendant arising out of the same transaction. . . . 4. The right of a defendant to have the plaintiff's claim reduced or eliminated because of the plaintiff's breach of contract or duty in the same transaction."). The parties have cited no case, and we have found none, in which the term recoupment has been applied to non-monetary relief such as an injunction.

Washington's cross-request for an injunction thus does not qualify as a claim for recoupment and is barred by sovereign immunity.

b. Standing

Washington seeks an injunction requiring the United States to correct its barrier culverts on the ground that the United States is bound by the Treaties in the same manner and to the same degree as the State. Washington is, of course, correct that the United States is bound by the Treaties. Indian treaty rights were "intended to be continuing against the United States . . . as well as against the state[.]" *Winans*, 198 U.S. at 381–82. Our holding that Washington has violated the Treaties in building and maintaining its barrier culverts necessarily means that the United States has also violated the Treaties in building and maintaining its own barrier culverts.

However, any violation of the Treaties by the United States violates rights held by the Tribes rather than the State. The Tribes have not sought redress against the United States in the proceeding now before us.

2. Recoupment of Part of Washington's Costs

In its Petition for Panel Rehearing and for Rehearing En Banc, filed after our opinion came down, *see United States v. Washington*, 827 F.3d 836 (9th Cir. 2016), Washington contends that we misconstrued its appeal of the district court's denial of its cross-request. Washington writes in its Petition:

> The State's original [cross-request] sought a variety of remedies, including that the federal government be required to (1) pay part

> of the cost of replacing state culverts that were designed to federal standards; (2) take actions on federal lands to restore salmon runs; and (3) replace federal culverts in Washington. But on appeal, the State pursued only the first of these remedies.

We did not, and do not, so understand the State's appeal. Contrary to Washington's statement, it did appeal the district court's denial of its cross-request for an injunction requiring the United States to repair or replace the United States' own barrier culverts. It did not appeal a denial of a request that the United States be required to pay part of its costs to repair or replace its culverts.

In the district court, Washington stated in the body of its cross-request that "[t]he United States has a duty to pay all costs incurred by the State to identify and fix any and all barrier culverts." But in its demand for relief, Washington did not demand any monetary payment from the United States, unless its boilerplate request ("The State of Washington further requests all other relief the Court deems just and equitable") could be deemed such a demand. Not surprisingly, in denying Washington's cross-request, the district court did not discuss a demand for monetary payment from the United States. In its brief to us, Washington writes in the introduction that the district court erred in denying its request to allow the State "to recoup some of the costs of compliance from the United States because it specified the culvert design and caused much of the decline in the salmon runs." But Washington makes no argument in the body of its brief that it should be allowed to recover

from the United States any part of the cost to repair or replace its own barrier culverts.

When considering Washington's appeal, we did not understand it to argue that it should have been awarded, as recoupment or set-off, a monetary award from the United States. Given Washington's failure to make this argument in the body of its brief, the argument was waived. *Smith v. Marsh*, 194 F.3d 1045, 1052 (9th Cir. 1999). However, given the vigor with which Washington now makes the argument in its Petition for Rehearing and Rehearing En Banc, we think it appropriate to respond on the merits.

Washington's argument is easily rejected. As recounted above, a claim for recoupment must, *inter alia*, "seek relief of the same kind or nature as the plaintiff's suit." *Berrey*, 439 F.3d at 645. Washington's claim does not satisfy this criterion. The United States, the plaintiff, sought injunctive relief against Washington. Washington sought a monetary award. These two forms of relief are not "of the same kind or nature."

D. Injunction

The district court held a trial in 2009 and 2010 to determine the appropriate remedy for Washington's violation of the Treaties. At the time of trial, there were 1,114 state-owned culverts in the Case Area. At least 886 of them blocked access to "significant habitat," defined as 200 linear meters or more of salmon habitat upstream from the culvert to the first natural passage barrier. More barrier culverts were identified or constructed within the Case Area after 2009. The court estimated in its 2013 Memorandum and Decision that at the then-current

rate of remediation, all of the barrier culverts under the control of WSDNR, State Parks, and WDFW would be corrected by October 31, 2016. The great majority of barrier culverts, however, were under WSDOT's control. In 2009, when trial began, there were 807 identified WSDOT barrier culverts. Additional WSDOT barrier culverts were constructed or identified after that date.

In 1997, WDFW and WSDOT reported to the Washington State legislature that WSDOT culverts blocked 249 linear miles of stream, comprising over 1.6 million square meters of salmon habitat, which they estimated was sufficient to produce 200,000 adult salmon per year. Based on WDFW records, the district court found that at the time of trial, state-owned barrier culverts in the Case Area blocked access to approximately 1,000 miles of stream, comprising almost 5 million square meters of salmon habitat.

The district court issued a permanent injunction in 2013, on the same day it issued its Memorandum and Decision. The court ordered the State, in consultation with the Tribes and the United States, to prepare within six months a current list of all state-owned barrier culverts within the Case Area. The court ordered that identification of a culvert as a "barrier" be based on the methodology specified in the Fish Passage Barrier and Surface Water Diversion Screening and Prioritization Manual ("Assessment Manual") published by WDFW in 2000. The court ordered WSDNR, State Parks, and WDFW to provide fish passage through all their barrier culverts on the list by October 31, 2016 — the date by which these

three agencies were already expected to complete correction of their barrier culverts.

For barrier culverts under the control of WSDOT, the injunction was more nuanced. In Paragraph 6 of the injunction, the court ordered WSDOT to provide, within seventeen years of the date of the order, and "in accordance with the standards set out in this injunction," fish passage for each barrier culvert with more than 200 linear meters of salmon habitat upstream to the first natural passage barrier. In Paragraph 7, the court ordered WSDOT to replace existing barrier culverts above which there was less than 200 linear meters of accessible salmon habitat only at the "end of the useful life" of the culverts, or sooner "as part of a highway project." In Paragraph 8, the court allowed WSDOT to defer correction of some of the culverts described in Paragraph 6. Deferred culverts can account for up to ten percent of upstream habitat from the culverts described in Paragraph 6. WSDOT's choice of which culverts to defer is to be made in consultation with the Tribes and the United States. The court specified that the choice of culverts could be guided by the "Priority Index" methodology described in the WDFD Assessment Manual. That methodology uses cost as a permissible factor in determining priority. Assessment Manual at 55. Culverts deferred under Paragraph 8 are to be replaced on the more lenient schedule specified in Paragraph 7.

In Paragraph 9, the district court ordered that the State

> shall design and build fish passage at each barrier culvert on the List in order to pass all

> species of salmon at all life stages at all flows where the fish would naturally seek passage. In order of preference, fish passage shall be achieved by (a) avoiding the necessity for the roadway to cross the stream, (b) use of full span bridge, (c) use of the "stream simulation" methodology . . . which the parties to this proceeding have agreed represents the best science currently available for designing culverts that provide fish passage and allow fluvial processes. Nothing in this injunction shall prevent the [State] from developing and using designs other than bridges or stream simulation in the future if the [State] can demonstrate that those future designs provide equivalent or better fish passage and fisheries habitat benefits than the designs required in this injunction.

In Paragraph 10, the court provided that the State may deviate from the design standards specified in Paragraph 9 in cases of emergency or where "extraordinary site conditions" exist. The court specified that it would "retain continuing jurisdiction . . . for a sufficient period to assure that the [State] compl[ies] with the terms of this injunction."

Washington declined to participate in the formulation of the injunction on the ground that it had not violated the Treaties and that, therefore, no remedy was appropriate. Washington now objects on several grounds to the injunction that was formulated without its participation. Washington specifically objects (1) that the injunction is too "broad," Brief at 50; (2) that the district court did not "defer to the State's expertise," *id.* at 54; (3) that the court did not

properly consider costs and equitable principles, *id.* at 57; (4) and that the injunction "impermissibly and significantly intrudes into state government operations." *Id.* at 63. Finally, Washington objects that its four specific objections support a contention that the court's injunction is inconsistent with "federalism principles." *Id.* at 47, 65. We consider the State's objections in turn.

1. Breadth of the Injunction

Washington contends in its brief that "[t]he Tribes *presented no evidence* that state-owned culverts are a significant cause of the decline [in salmon]. . . . Despite that *complete failure of proof*, the district court found that state-owned culverts 'have a significant total impact on salmon production.'" Brief at 50 (emphasis in original). Washington contends, further, that the district court "ordered replacement of nearly every state-owned barrier culvert within the case area without any specific showing that those culverts have significantly diminished fish runs or tribal fisheries, or that replacing them will meaningfully improve runs." *Id.*

Washington misrepresents the evidence and mischaracterizes the district court's order.

Contrary to the State's contention, the Tribes presented extensive evidence in support of the court's conclusion that state-owned barrier culverts have a significant adverse effect on salmon. The 1997 report prepared for the Washington State Legislature by two of the defendants in this case, WDFW and WSDOT, stated, "Fish passage at human made barriers such as road culverts is one of the most recurrent and

correctable obstacles to healthy salmonid stocks in Washington." The report concluded:

> A total potential spawning and rearing area of 1,619,839 m^2 (249 linear miles) is currently blocked by WSDOT culverts on the 177 surveyed streams requiring barrier resolution; this is enough wetted stream area to produce 200,000 adult salmonid annually. These estimates would all increase when considering the additional 186 barriers that did not have full habitat assessments.

The report recommended that state funding be supplied to remove "all barriers" under the control of the State:

> Planning is underway for resolution of at least seven more barriers during the 1997–99 biennium using dedicated funds, and to resolve all barriers in the next two or three decades. . . . Estimated cost is about $40 million, with resultant benefits exceeding $160 million.

Based on later WDFW figures, the district court found that at the time of trial state-owned barrier culverts in the Case Area blocked access to approximately 1,000 linear miles of stream, comprising almost 5 million square meters of salmon habitat. These figures, taken together with the 1997 figures supplied by WDFW and WSDOT, indicate that the total habitat blocked by state-owned barrier culverts in the Case Area is capable of producing several times the 200,000 mature salmon specified in the 1997 report.

The State contends that because of the presence of non-state-owned barrier culverts on the same streams as state-owned barrier culverts, the benefit obtained from remediation of state-owned culverts will be insufficient to justify the district court's injunction. The State writes:

> [S]tate-owned culverts are less than 25% of all known barrier culverts, and in some places, non-state culverts outnumber state-owned culverts by a factor of 36 to 1. Any benefit from fixing a state-owned culvert will not be realized if fish are blocked by other culverts in the same stream system.

There are several answers to the State's contention. First, it is true that in calculating whether a state culvert is a barrier culvert, and in determining the priority for requiring remediation, the court's injunction ignores non-state barriers on the same stream. But in so doing, the court followed the practice of the state itself. Paul Sekulich, formerly division manager in the restoration division in the habitat program of the Washington Department of Fish and Wildlife ("WDFW"), testified in the district court:

> Q: When you calculate a priority index number for a [state-owned] culvert, do you account for the presence of other fish passage barriers in a watershed?
>
> A: . . . When the priority index is calculated, it treats those other barriers as transparent. The reason we do that, we don't know when those other barriers are being corrected. So by treating them as transparent, you do a priority index that looks at potential habitat gain as if

> all those barriers would be corrected at some point in time.

Washington State law requires that a "dam or other obstruction across or in a stream" be constructed in such a manner as to provide a "durable and efficient fishway" allowing passage of salmon. Wash. Rev. Code § 77.57.030(1). If owners fail to construct or maintain proper fishways, the Director of WDFW may require them do so at their own expense. *Id.* at § 77.57.030(2).

Second, in 2009, on streams where there were both state and non-state barriers, 1,370 of the 1,590 non-state barriers, or almost ninety percent, were upstream of the state barrier culverts. Sixty nine percent of the 220 downstream non-state barriers allowed partial passage of fish. Of the 152 that allowed partial passage, "passability" was 67% for 80 of the barriers and 33% for 72 of them.

Third, the specific example provided by the state is a culvert on the Middle Fork of Wildcat Creek under State Route 8 in Grays Harbor County. The State is correct that there are 36 non-state barriers and only one state barrier culvert on this creek. The State fails to mention, however, that all of the non-state barriers are upstream of the state culvert. Further, it is apparent from the map in the district court record that the nearest non-state barrier is almost a half mile upstream.

Witnesses at trial repeatedly described benefits to salmon resulting from correction of barrier culverts. One example is evidence presented by Mike McHenry, habitat program manager for the Lower Elwha Klallam Tribe. In his written testimony, McHenry described several studies. One was a 2003 study of

culvert removal projects on the Stillaguamish River that opened up 19 linear kilometers of salmon habitat. According to the study, over 250 adult coho salmon were observed spawning in the newly accessible habitat in each of the two years immediately after the completion of the projects. Based on his own experience as habitat manager for the tribe, McHenry wrote that removal of barrier culverts on the Lower Elwha River had had a similar effect. In McHenry's view, "The systematic correction of barrier culverts is an important place to focus restoration efforts." He wrote, further, "The correction of human caused barriers is generally recognized as the second highest priority for restoring habitats used by Pacific salmon (following the protection of existing functional habitats)."

In his live testimony, McHenry stated that his tribe had corrected seventeen of thirty-one barriers in a particular watershed:

> McHenry: Because when we did the watershed assessment, we found that there were 50 miles of historically active stream that salmon could access in this watershed, and fully half that mileage was blocked by culverts of various ownerships. So to us, we applied our scientific knowledge and recommendations from the literature which indicated that when you're going to restore a place like this, you need to go after the barriers first.
>
> The Court: In your expert opinion, that was the biggest bang for your buck?
>
> McHenry: Yes.

Another example is the live testimony of Lawrence Wasserman, environmental policy manager for the Swinomish Indian Tribal Community. He testified that culvert remediation provides substantial benefits:

> There's an immediate access and immediate benefit to additional habitat when we replace a culvert . . . .
>
> If you compare that to having to plant trees, shade, it can take 10, 20, 50 years to get the trees large enough . . . .
>
> . . . We have a high confidence in design. By and large, we know how to fix culverts. . . . So we have a high confidence compared to many other more experimental restoration activities.
>
> It's fairly easy to monitor. If there were no fish there before, [then] we open a culvert and we can count fish[.] . . .
>
> A critical factor is that there's minimal impacts on adjacent land use or land owners. . . . [I]t's relatively infrequent where there needs to be a condemnation of other people's land or asking people to sell their land. . . .
>
> . . . It's cost effective. There have been some studies that have shown that, really, compared to other kinds of restoration activities, the cost per smolt produced is relatively low[.] . . .
>
> And finally, we get benefits with a broad sweep of culvert repairs. We get a very broad geographic distribution of benefits, and the

cumulative effects can accrue across a variety of watersheds.

It is true, as the evidence at trial showed, that correction of barrier culverts is only one of a number of measures that can usefully be taken to increase salmon production in the Case Area. It is also true that the benefits of culvert correction differ depending on the culvert in question. For example, Paul Wagner, manager of the culvert correction program for WSDOT, presented evidence in 2013 identifying 817 WSDOT barrier culverts blocking 937 linear miles of stream habitat in the Case Area. Wagner's evidence showed that correction of the 314 culverts blocking the most habitat would open up 655 of the 937 miles of total habitat. Correcting the 232 culverts blocking the least habitat would open up only 95 miles. Those 95 miles of habitat constitute 10.1 percent of the total habitat blocked by the 817 barrier culverts. The 232 culverts blocking those 95 miles constituted 28.4 percent of the total barrier culverts.

The district court's injunction took into account the facts that culvert correction is not the only factor in salmon recovery; that some culverts block more habitat than others; and that some culverts are more expensive to correct than others. The court ordered correction of high-priority culverts — those blocking 200 linear meters or more of upstream habitat — within seventeen years. For low-priority culverts — those blocking less than 200 linear meters of upstream habitat — the court ordered correction only at the end of the useful life of the existing culvert, or when an independently undertaken highway project would require replacement of the culvert. Further, recognizing the likelihood that accelerated

replacement of some high-priority culverts will not be cost-effective, the court allowed the State to defer correction of high-priority culverts accounting for up to ten percent of the total blocked upstream habitat, and to correct those culverts on the more lenient schedule of the low-priority culverts. Wagner's evidence indicates that if the sole criterion for choosing deferred culverts is the amount of blocked habitat, there will be approximately 230 deferred culverts. If cost of correction of particular culverts is added as a criterion, there will be a somewhat smaller number of deferred culverts.

In sum, we disagree with Washington's contention that the Tribes "presented no evidence," and that there was a "complete failure of proof," that state-owned barrier culverts have a substantial adverse effect on salmon. The record contains extensive evidence, much of it from the State itself, that the State's barrier culverts have such an effect. We also disagree with Washington's contention that the court ordered correction of "nearly every state-owned barrier culvert" without "any specific showing" that such correction will "meaningfully improve runs." The State's own evidence shows that hundreds of thousands of adult salmon will be produced by opening up the salmon habitat that is currently blocked by the State's barrier culverts. Finally, we disagree with Washington's contention that the court's injunction indiscriminately orders correction of "nearly every state-owned barrier culvert" in the Case Area. The court's order carefully distinguishes between high-and low-priority culverts based on the amount of upstream habitat culvert correction will open up. The order then allows for a further

distinction, to be drawn by WSDOT in consultation with the United States and the Tribes, between those high-priority culverts that must be corrected within seventeen years and those that may be corrected on the more lenient schedule applicable to the low-priority culverts.

2. Deference to the State's Expertise

Washington contends that the district court made a clearly erroneous finding of fact, concluding that correction of human-caused barriers is the highest priority in habitat restoration. It contends, further, that this finding led the court to ignore the expert testimony presented by both the State and the Tribes. Washington wrote in its brief:

> The State has concluded — and the Tribes agree — that a comprehensive approach to preserving and restoring salmon runs is the most productive and cost-effective . . . . The district court concluded, however, that "correction of human-caused barriers is recognized as the highest priority for restoring salmon habitat in the Case Area." On that basis, the court ordered injunctive relief focused solely on culverts, even though the cost of the injunction will likely reduce funding available for other salmon restoration efforts. The court's finding was clearly erroneous, and its approach was an abuse of discretion.
>
> In concluding that fixing culverts is "the highest priority for restoring salmon habitat in the Case Area," the court cited the declaration of tribal expert Mike McHenry. Mr. McHenry said no such thing.

Brief at 54–55.

Washington is mistaken. It is true that the district court made the factual finding to which Washington objects. Citing McHenry's evidence, the court wrote, "The correction of human-caused barriers is recognized as the highest priority for restoring salmon habitat in the Case Area." But the court's finding is amply supported by the record. With respect to restoring habitat (as distinct from *preserving* habitat, which has a higher priority), McHenry wrote that it is "generally recognized" that the correction of human-caused barriers is the highest priority. Further, McHenry testified that "you need to go after the barriers first" because that is the "biggest bang for the buck." Wasserman testified to the same effect, saying that "there's an immediate access and immediate benefit to additional habitat when we replace a culvert"; that "it's cost effective" compared to "other kinds of restoration activities"; and that "the cumulative effects can accrue across a variety of watersheds."

It is also true that the district court's injunction "focused solely on culverts" and did not order other remedies. But it is appropriate that the injunction should have done so. The court was acutely conscious of the fact that, while barrier culverts are an important cause of the decline of salmon in the Case Area, they are not the only cause. It wrote, "*A primary cause* of this decline is habitat degradation . . . . *One cause* of the degradation of salmon habitat is blocked culverts[.]" (Emphasis added.) However, because the only treaty violation alleged in this litigation was Washington's barrier culverts, the court acted appropriately in ordering only the correction of these

culverts. As the court wrote, "The scope of this subproceeding includes only those culverts that block fish passage under State-owned roads."

Contrary to Washington's contention, the district court had a sophisticated record-based understanding of the various causes of the decline of salmon in the Case Area, of what could be achieved by the correction of state-owned barrier culverts, and of the limitations on what could be achieved by culvert correction. The court's injunction is carefully crafted to reflect that understanding.

3. Costs and Equitable Principles

Washington contends that the district court's injunction fails properly to take costs into account, and that its injunction is inconsistent with equitable principles.

a. Costs

Washington writes in its brief that correction of WSDOT barrier culverts will cost approximately $1.88 billion over the course of the seventeen-year schedule ordered by the court, or "roughly $117 million per year of the injunction." (Using Washington's own estimates, a correct calculation is actually $110.6 million per year rather than $117 million.) Washington's estimated total cost is based on an assumption of 817 corrected culverts, at an average correction cost of $2.3 million per culvert.

Washington's cost estimates are not supported by the evidence. Washington contended at trial, as it now contends to us, that the average cost to replace a WSDOT barrier culvert would be $2.3 million. But the district court did not accept this estimate. The court

found that "the actual cost of construction for twelve WSDOT stream simulation culvert projects completed prior to the 2009 trial ranged from $413,000 to $1,674,411; the average cost for the twelve was $658,639 each." In 2013, the State submitted a declaration from WSDOT official Wagner listing thirty-one culvert correction projects completed statewide since October 2009. Of these, twenty-four used either a stream simulation design or a bridge. The declaration stated that the average cost for each these twenty-four projects was $1,827,168, not $2,300,000 as the State now contends. The district court noted that even Wagner's lower figure could not be confirmed because cost data was missing for eight of the twenty-four projects.

There are additional reasons to disregard the State's estimate of total cost. First, Washington assumes that all 817 of the state-owned barrier culverts will be corrected on the seventeen-year schedule. This is demonstrably incorrect. According to the State's own evidence, Paragraph 8 of the injunction will allow the State to defer correction of approximately 230 of the 817 culverts. If cost of barrier correction (rather than merely amount of upstream habitat) is taken into account in deciding which culverts to defer, fewer but more costly culverts will be deferred. Second, and perhaps more important, Washington must eventually correct its barrier culverts, irrespective of the court's order in this suit. The district court wrote that federal and state law require Washington to correct its barrier culverts "in any case," and that the only consequence of its order will be an "acceleration of barrier correction." The net costs imposed on Washington by the injunction are

thus not the full costs of barrier correction, but rather only the "marginal costs attributable to an accelerated culvert correction schedule."

Finally, we note that a portion of WSDOT's funding for correcting its barrier culverts will come from the United States. The court wrote, "[T]he state expects to receive over $22,000,000 for fish passage barrier projects from the federal government in the years 2011 to 2017. Of this amount, $15,813,000 is expected in the 2013–2015 biennium."

b. Equitable Principles

Washington makes one specific objection based on equitable principles. It objects that the court abused its discretion in requiring that "the State alone," rather than State in conjunction with the United States, be "burdened with the entire cost of culvert repair." Brief at 63. We disagree. The court's order required correction of only those barrier culverts that were built and maintained by the State. It was not an abuse of discretion to require the State to pay for correction of its own barrier culverts.

Further, we note more generally that the district court did consider equitable principles, and concluded that those principles favored the Tribes and the citizens of the State. The court wrote:

> The Tribes and their individual members have been harmed economically, socially, educationally, and culturally by the greatly reduced salmon harvests that have resulted from State-created or State-maintained fish passage barriers.

> This injury is ongoing, as efforts by the State to correct the barrier culverts have been insufficient. . . . Remedies at law are inadequate as monetary damages will not adequately compensate the Tribes and their individual members for these harms. . . .
>
> The balance of hardships tips steeply toward the Tribes in this matter. The promise made to the Tribes that the Stevens Treaties would protect their source of food and commerce was crucial in obtaining their assent to the Treaties' provisions. . . . Equity favors requiring the State of Washington to keep the promises upon which the Tribes relied when they ceded huge tracts of land by way of the Treaties.
>
> . . .
>
> The public interest will not be disserved by an injunction. To the contrary, it is in the public's interest, as well as the Tribes' to accelerate the pace of barrier correction. All fishermen, not just Tribal fishermen, will benefit from the increased production of salmon. . . . The general public will benefit from the enhancement of the resource and the increased economic return from fishing in the State of Washington. The general public will also benefit from the environmental benefits of salmon habitat restoration.

4. Intrusion into State Government Operations

Washington contends that the court's order "impermissibly and significantly intrudes into state

government operations." Brief at 63. Washington contends that it "was making great strides in repairing culverts before any federal court intervention," and that "there was no need for the court to issue a detailed and expensive injunction that sets an inflexible and tight schedule for culvert repair." *Id.* at 63–64. Washington implies that the cost of complying with the court's order will oblige the State to cut other important state programs:

> [T]he injunction will require the State to devote roughly $100 million per year more than it otherwise would have to culvert repair. This at a time when the State faces recurring budget shortfalls in the billions of dollars and has already made deep and painful cuts to subsidized health insurance for low income workers, K-12 schools, higher education, and basic aid for persons unable to work.

Id. at 58. We disagree.

The district court disagreed with Washington's contention that there was "no need" for the court to order correction of its barrier culverts. Based on the State's slow rate of barrier correction, the court concluded that "under the current State approach, the problem of WSDOT barrier culverts in the Case Area will never be solved." The district court also disagreed with the Washington's cost estimates. As seen above, Washington's estimate of its cost to comply with the court's order ("roughly $100 million per year" more than it would otherwise spend) is dramatically overstated.

The district court carefully considered the marginal cost imposed on Washington by its

injunction and concluded that the State could comply with the order without cutting vital state programs. The court relied on a state budget document showing that $9.9 billion was allocated to the state transportation budget for the 2011–2013 biennium. Of that $9.9 billion, $7.88 billion was allocated to WSDOT. Noting the separation of the transportation budget from other state budgets, the court concluded, "The separation of the Transportation Budget from the Operating and Capital Budgets ensures that money will not be taken from education, social services, or other vital State functions to fund culvert repairs."

5. Federalism Principles

Washington contends, based on the four specific objections just reviewed, that the district court's injunction violates principles of federalism. Washington asserts four principles of federalism:

> First, the remedy must be no broader than necessary to address the federal law violation. Second, courts must grant deference to a state's institutional competence and subject matter expertise. Third, courts must take cost into consideration and not substitute their budgetary judgment for that of the state. And finally, relief must be fashioned so that it is the least intrusive into state governmental affairs. The district court's injunction here contravenes all of these principles.

Blue Brief at 49. We will not quarrel here with these principles, stated at this level of generality. However, for the reasons given above, we have concluded that the district court's injunction violates none of them.

Further, a federalism-based objection to an injunction enforcing Indian treaty rights should not be viewed in the same light as an objection to a more conventional structural injunction. Washington cites two Supreme Court cases in support of its federalism objection — *Rizzo v. Goode*, 423 U.S. 362 (1976) (structural injunction requiring reform of the Philadelphia police department), and *Horne v. Flores*, 557 U.S. 433 (2009) (structural injunctions requiring Arizona to comply with Equal Educational Opportunities Act of 1974). However, Washington fails to cite the Supreme Court case directly on point — *Fishing Vessel*, 443 U.S. 658 (1979) — in which the Court affirmed detailed injunctions requiring Washington to comply with the very Treaties at issue in this case.

The district court in *Fishing Vessel* had entered a series of detailed injunctions implementing its holding that the Treaties entitled the Tribes to take up to fifty percent of harvestable salmon in any given year. Washington strenuously resisted, with the result that the district court effectively took over much of the State's management of the salmon fishery. Washington objected both to the district court's interpretation of the Treaties, and to the court's intrusion into its affairs. The Supreme Court affirmed the district court's holding on the meaning of the Treaties. It then rejected, in no uncertain terms, federalism-based objections to the injunctions enforcing the Treaties:

> Whether [Washington] Game and Fisheries may be ordered actually to promulgate regulations having effect as a matter of state law may well be doubtful. But

> the District Court may prescind that problem by assuming direct supervision of the fisheries if state recalcitrance or state-law barriers should be continued. *It is therefore absurd to argue . . . both that the state agencies may not be ordered to implement the decree and also that the District Court may not itself issue detailed remedial orders as a substitute for state supervision.*

Fishing Vessel, 443 U.S. at 695 (emphasis added).

6. Modification of the Injunction

It is possible that changing or newly revealed facts or circumstances will affect the fairness or efficacy of an injunction. In the case before us, the district court has ordered that many of WSDOT's high-priority barrier culverts be corrected over the course of seventeen years, and that the remainder be corrected only at the end of the culvert's natural life or when road work undertaken for independent reasons would in any event require replacement of the culvert. It is possible that, during this extended period, changed or newly revealed facts or circumstances will justify a modification of the injunction. The district court should not hesitate to modify its injunction if this proves to be the case. As the Supreme Court wrote in *System Federation No. 91 v. Wright*, 364 U.S. 642, 647 (1961), "a sound judicial discretion may call for the modification of the terms of an injunctive decree if the circumstances, whether of law or fact, obtaining at the time of its issuance have changed, or new ones have since arisen." *See also Rufo v. Inmates of Suffolk Cnty. Jail*, 502 U.S. 367, 380–81 (1992). In affirming the judgment entered by the

district court in this case, we emphasize that the flexibility inherent in equity jurisdiction allows the court, if changed or newly revealed facts or circumstances warrant, to modify its injunction accordingly.

Conclusion

In sum, we conclude that in building and maintaining barrier culverts Washington has violated, and continues to violate, its obligation to the Tribes under the fishing clause of the Treaties. The United States has not waived the rights of the Tribes under the Treaties, and has not waived its own sovereign immunity by bringing suit on behalf of the Tribes. The district court did not abuse its discretion in enjoining Washington to correct most of its high-priority barrier culverts within seventeen years, and to correct the remainder at the end of their natural life or in the course of a road construction project undertaken for independent reasons.

AFFIRMED.

UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF WASHINGTON
AT SEATTLE

UNITED STATES OF AMERICA, et al., Plaintiffs, v. STATE OF WASHINGTON, et al., Defendants.	CASE NO. CV 70-9213 Subproceeding 01-01 MEMORANDUM AND DECISION

This matter was initiated by a Request for Determination ("Request") filed in 2001 by plaintiffs Suquamish Indian Tribe, Jamestown S'Klallam, Lower Elwha Band of Klallam, Port Gamble Clallam, Nisqually Indian Tribe, Nooksack Tribe, Sauk-Suiattle Tribe, Skokomish Indian Tribe, Squaxin Island Tribe, Stillaguamish Tribe, Upper Skagit Tribe, Tulalip Tribe, Lummi Indian Nation, Quinault Indian Nation, Puyallup Tribe, Hoh Tribe, Confederated Bands and Tribes of the Yakama Indian Nation, Quileute Indian Tribe, Makah Nation, and Swinomish Tribal Community, and Muckleshoot Indian Tribe (hereafter, "the Tribes"). Plaintiff United States of America joined in the request. The Request for Determination, filed pursuant to the Permanent Injunction in this case, asked the Court to find that the State of Washington has a treaty-based duty to preserve fish runs, and sought to compel the State to repair or replace culverts that impede salmon migration to or from spawning grounds.

On August 23, 2007, the Court ruled on cross-motions for summary judgment, finding in favor of the Tribes and declaring that

> the right of taking fish, secured to the Tribes in the Stevens Treaties, imposes a duty upon the State to refrain from building or operating culverts under State-maintained roads that hinder fish passage and thereby diminish the number of fish that would otherwise be available for Tribal harvest. The Court further declares that the State of Washington currently owns and operates culverts that violate this duty.

Order on Cross-Motions for Summary Judgment. Dkt. # 392, p. 12. The matter was then set for a bench trial on remedies.

The trial was held over seven days in October 2009, and final argument was heard on June 7, 2010. The Court has delayed its ruling in the hope that the parties would resume their settlement negotiations, but it does not appear that has occurred. The Court directed the parties to file supplemental memoranda on the current status of the matter by February 1, 2013. Dkt. # 733. Having considered the testimony and exhibits submitted at trial, together with the final arguments and supplemental memoranda, the Court now issues its Findings of Fact and Conclusions of Law.

FINDINGS OF FACT

1. This is a designated subproceeding of *United States v. Washington*, C70-9213, based on language in the 1855 Treaty of Point Elliot in which the Tribes

were promised that "[t]he right of taking fish at all usual and accustomed grounds and stations, is further secured to said Indians, in common with all citizens of the Territory." During the negotiations leading up to the signing of the treaties, Governor Issac Stevens and other negotiators assured the Tribes of their continued access to their usual fisheries. Declaration of Richard White, Dkt. # 296, ¶¶ 8, 9, 11. Governor Stevens assured the Tribes that even after they ceded huge quantities of land, they would still be able to feed themselves and their families forever. As Governor Stevens stated, "I want that you shall not have simply food and drink now but that you may have them forever." *Id.*, ¶ 14. Both the negotiators and the Tribes believed that the fisheries were inexhaustible. *Id.* Thus, during the negotiations, the "Indians, like whites, assumed that their cherished fisheries would remain robust forever." Declaration of Joseph Taylor III, Dkt. # 297, ¶ 7.

2. In construing the treaty, the Supreme Court found that

> Governor Stevens and his associates were well aware of the "sense" in which the Indians were likely to view assurances regarding their fishing rights. During the negotiations, the vital importance of the fish to the Indians was repeatedly emphasized by both sides, and the governor's promises that the treaties would protect that source of food and commerce were crucial in obtaining the Indians' assent. It is absolutely clear, as Governor Stevens himself said, that neither he nor the Indians intended that the latter "should be excluded from their ancient fisheries", and it is accordingly

> inconceivable that either party deliberately agreed to authorize future settlers to crowd the Indians out of any meaningful use of their accustomed places to fish.

State of Washington v. Washington State Commercial Passenger Fishing Vessel Association, 443 U.S. 658, 677 (1979) (citations omitted).

3. The following facts are admitted by the parties:[1]

SALMON BIOLOGY AND FISH PASSAGE

3.1 In 1973, biologists from some of the parties to this case prepared a Joint Statement Regarding the Biology, Status, Management, and Harvest of the Salmon and Steelhead Resources of the Puget Sound and Olympic Peninsular Drainage Areas of Western Washington. The parties submitted it to this Court as Joint Exhibit 2a. In Section 3-400 of the August 24, 1973 Final Pretrial Order in Phase I (Docket #353), the parties adopted its contents as admitted facts in this case, and the Court adopted them as findings of fact in Finding of Fact 164 of Final Decision #1 (Docket #414). The contents of Part I and Part II through 2.2.5.3 of Joint Exhibit 2a are hereby incorporated by reference as admitted facts in this Subproceeding.

3.2 For purposes of this case, the terms "anadromous salmonids" or "salmon" refer to the following species: Oncorhynchus kisutch (Coho);

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[1]Docket numbers in this section refer to the main case, C70-9213.

Oncorhynchus tshawytscha (Chinook); Oncorhynchus gorbuscha (Pink); Oncorhynchus nerka (sockeye); Oncorhynchus keta (Chum); and Oncorhynchus mykiss (formerly Salmo gairdnerii) (steelhead).

3.3 Salmon spawn in freshwater, migrate to the sea, and return to spawn again in fresh water. When juvenile salmon move from freshwater to salt, they are known as smolts.

3.4 Transport and storage of wood, large woody debris, and sediment in fish bearing streams are important components of healthy productive salmon habitat.

3.5 Juvenile salmon move both upstream and downstream in response to habitat changes, predation, and population pressures.

MODERN TRIBAL HARVESTS

3.6 In 1974 this Court found: "Subsequent to the execution of the treaties and in reliance thereon, the members of the Plaintiff tribes have continued to fish for subsistence, sport and commercial purposes at their usual and accustomed places. Such fishing provided and still provides an important part of their livelihood, subsistence and cultural identity." *United States v. Washington*, 384 F. Supp. 312 (W.D. Wash. 1974), Finding of Fact 31.

3.7 In 1974 this Court found: "Fish continue to provide a vital component of many Indians' diet. For others it may remain an important food in a symbolic sense---analogous to Thanksgiving turkey. Few habits are stronger than dietary habits and their persistence is usually a matter of emotional preference rather than a nutritional need. For some Indians, fishing is

also economically important. Fishing is also important for some non-Indians." *United States v. Washington*, 384 F. Supp. 312 (W.D. Wash. 1974), Finding of Fact 29.

3.8 The magnitude of modern tribal salmon harvest has fluctuated as a result of many factors, some of which are human-caused and some of which are naturally occurring.

3.9 As a result of widespread alterations of waterways and sharply diminished salmon populations, the areas available for tribal harvest of salmon have decreased significantly since 1855.

3.10 Since Treaty time, overharvest, habitat alteration, poor hatchery practices, and hydropower development are some of the human-caused factors that have greatly reduced the abundance of salmon available for tribal harvest in the Case Area.

3.11 As described in Findings of Fact 33, 56, 70, and 193 in Final Decision, #1, the number of tribal members engaged in the harvest of fish declined for several decades before 1974 due to employment acculturation, the crowding out of Indians from their traditional fishing places by non-Indians, and many years of state enforcement actions against Indians exercising their claimed treaty rights, among other reasons.

3.12 As stipulated by the parties in Stipulation Re: Treaty and Non-Treaty Harvest Data (Docket # 19363/577), Tribal harvest of salmon in the Case Area from 1974 through 2007, as recorded in the treaty ticket fish database maintained by the Northwest Indian Fisheries Commission, is shown

below and in Exhibit AT-003-16 (chart attached as Attachment A to Order).

3.13 Tribal members in modern times and to the present have continued to harvest salmon despite increased production costs, restricted fishing areas, fewer and shorter open seasons, fluctuating market prices, competition from farm raised salmon, other human and nonhuman stresses on harvest, and the availability of other economic opportunities.

3.14 Many members of the Tribes would engage in more commercial and subsistence salmon fisheries if more fish were available.

3.15 Some Tribes are engaged in fisheries enhancement for the purpose of providing additional fishing opportunities for tribal members, but those efforts are inadequate to meet tribal needs for salmon.

3.16 No plaintiff Tribe has abandoned its fisheries.

3.17 "Escapement" refers to adult salmon that escape harvest and other mortality and return to the spawning grounds.

3.18 Salmon of the same species, originating in the same area and returning to spawn at the same time of year, are referred to as a "stock."

3.19 The State and the Tribes regulate their respective fisheries to restrict the amount of harvest that might otherwise occur by limiting the number of vessels, the type of harvest gear, and the times and places during which fishing may occur.

3.20 State and tribal fisheries co-managers plan salmon fisheries each year based, among other

things, on the predicted abundance of harvestable salmon within the Case Area, the need for adequate escapement to replenish the population, and the predicted effects of harvest on particular stocks. Because some salmon stocks that spawn in the Case Area are intercepted in fisheries up and down the west coast of North America, and because some fisheries in the Case Area intercept stocks that spawn in Canada or the Columbia River Basin, the process of planning state and tribal fisheries occurs as part of a broader planning context that involves the governments of Canada, the United States, Alaska, Oregon, California, Idaho, and Indian Tribes that are not parties to *United States v. Washington*.

3.21 Some State and tribal fisheries within the Case Area harvest stocks that originate both within and outside the Case Area, and are planned to provide adequate escapement of stocks originating both within and outside the Case Area. Some salmon fisheries in northern Puget Sound and the Strait of Juan de Fuca target stocks from the Fraser River in Canada. Harvest levels of Canadian stocks are set through negotiations with Canada under the Pacific Salmon Treaty.

3.22 Mixed stock fisheries are those in which salmon of more than one stock are present.

3.23 Mixed stock fisheries that target one stock may incidentally harvest other stocks.

3.24 Salmon stocks of more and less abundance often are found together throughout the Case Area. To protect stocks that are weak or low in abundance, State and Tribal fisheries co-managers often limit the harvest of stronger stocks in mixed stock fisheries to

levels below those which the stronger stocks could sustain. The impact of this management strategy on harvest can be two-fold: first, additional harvest of stronger stocks can be limited in a mixed stock fishery; and second, a fishery can be moved to "terminal areas" where weaker stocks are not mixed with stronger stocks. Because Tribal treaty fishers can harvest only in their usual and accustomed grounds and stations ("U&A"), the mixed stock management strategy of limiting harvest of abundant stocks to protect less abundant stocks can affect the harvest by a treaty tribe with U&A in the mixed stock fishing area but without U&A in the terminal area where the harvest has been moved.

3.25 As stipulated by the parties in the Stipulation Re: Treaty and Non-Treaty Harvest Data (Docket #19363/577), for purposes of this Subproceeding only, the following table (attached to this Order as Attachment A) depicts treaty tribal catch of sockeye presumed to be of Canadian origin. Treaty catch of US origin versus Canadian origin sockeye stocks in Puget Sound was determined by applying an assumed percentage to total catch for each year. For Canadian origin stocks, the assumed percentage was determined by totaling the treaty sockeye landings in pre-terminal areas (Salmon Catch Reporting Areas 4B, 5, 6, 6C, 7, 7A and 9) and dividing by the total. The Salmon Catch Reporting Areas are depicted in Exhibits AT-008-2 and AT-008-3.

STOCK STATUS

3.26 Salmon populations in the Case Area at Treaty time were robust and had not suffered any appreciable human-caused decline.

3.27 There have been declines in the populations of salmon originating within the Case Area since Treaty time.

3.28 Today, while some salmon stocks in the Case Area are healthy, others are depressed, indanger of extinction, or already extinct.

CULVERT OPERATION AND EFFECTS

3.29 Culverts are structures used to pass roads over streams and streams under roads.

3.30 Whether a culvert poses a velocity barrier to fish depends, in part, on the swimming strength of the fish in terms of both speed and endurance.

3.31 Different species of salmon have different swimming strengths.

3.32 Juvenile salmon have less swimming strength than adult salmon of the same species.

3.33 Larger culverts have lower headwater at a given flow than smaller culverts and pass debris and sediment better than smaller culverts and therefore reduce the risk of structural failure of culverts at road crossings. Washington law currently requires that culverts shall be installed according to an approved design to maintain structural integrity to the 100-year peak flow with consideration of the debris loading likely to be encountered.

3.34 Among other factors, a partial fish passage barrier may delay migration and block the passage of smaller salmon.

CULVERT CORRECTION AND DESIGNS

3.35 Various options are available to prevent or remedy the existence of fish passage barrier culverts at stream-road intersections. These options include bridges, different types of culvert design methods, and relocation of roads to avoid the stream.

3.36 Scientists employed by state, federal and tribal agencies continue to conduct research on fish passage through culverts.

3.37 The current state of scientific knowledge supports the proposition that culverts which most closely simulate the characteristics of the natural stream channel and substrate are the least likely to inhibit fish passage.

3.38 During the 1990s, the Washington Department of Fish and Wildlife began developing a new method for designing culverts called the "stream simulation" method. That method is described in Exhibit AT-121 (W-089-B), *Design of Road Culverts for Fish Passage* (WDFW, 2003). Other entities, including the U.S. Forest Service, have developed and use similar "stream simulation" culvert design methodologies. *See* Stream Simulation: An Ecological Approach to Providing Passage for Aquatic Organisms at Road-Stream Crossings, May 2008 (AT-119). "Stream simulation" culverts are designed to create or maintain natural stream processes within the culvert. To accomplish that objective, all stream simulation designs dictate that a culvert should be at least as wide as bank-full width plus a buffer. Each agency calculates the width of the buffer slightly differently but the required culvert size is not significantly different.

3.39 No state, federal or tribal manual or regulation requires the use of stream simulation in the design, construction, or maintenance of culverts, although many agencies prefer the use of stream simulation culverts in anadromous fish bearing streams.

3.40 The Washington Department of Fish and Wildlife ("WDFW"), along with federal agencies such as National Marine Fisheries Service ("NMFS") and United States Forest Service ("USFS"), currently recommends use of the stream simulation method, and the State uses it in some culvert replacement projects.

3.41 At this time, the stream simulation method of culvert design as described in *Design of Road Culverts for Fish Passage* (WDFW, 2003) (Exhibits AT-121 and W-089-B), as well as the version developed by the U.S. Forest Service, *see* Stream Simulation: An Ecological Approach to Providing Passage for Aquatic Organisms at Road-Stream Crossings, May 2008 (AT-119), represents the best science currently available for designing culverts that provide fish passage and allow fluvial processes.

3.42 In most places, the stream simulation culvert design method provides effective transport of sediment.

3.43 Culverts designed to result in predetermined water velocities or depths at predetermined flows are known as "hydraulically designed" culverts.

3.44 The hydraulic design criteria in Table 1 of WAC 220-110-070(3) (Exhibit W-089-F) include

criteria intended to permit passage by a 6-inch adult trout.

3.45 The State uses the adult trout criteria from Table 1 of WAC 220-110-070(3) (Exhibit W 089-F) when designing hydraulically designed culverts for juvenile salmon passage.

3.46 The hydraulic design criteria in the adult trout portion of Table 1 of WAC 220-110-070(3) establish a maximum permissible change in water surface elevation at or above the culvert outlet of 0.8 foot.

3.47 For culverts built in fish-bearing waters, WDFW regulations at WAC 220-110-070(3) (Exhibit W-089-F) also permit culverts in small streams using a "no-slope" design method in which the culvert is placed on a flat gradient and is partially buried in the streambed. The WDFW no-slope design method for fish passage is accepted by the National Marine Fisheries Service under the Endangered Species Act for use only in very small streams where the natural slope is less than 3 percent and the culvert length is less than 80 feet, among other limitations. The Tribes have been involved in at least one barrier correction involving the no-slope design.

STATE CULVERTS

3.48 Washington State law has long required that obstructions across or in streams be provided with a durable and efficient fishway, maintained in an effective condition and continuously supplied with sufficient water to freely pass fish.

3.49 As early as 1881, Washington residents recognized the need to preserve fish access to habitat

and passed laws to prohibit the construction of human-made barriers.

3.50 In 1949, the Washington Department of Fisheries issued a publication noting that salmon spawning areas are constricted by major obstructions such as dams and minor obstructions such as barrier culverts. In 1950, the Attorney General of Washington published an Attorney General's Opinion, AGO 1950 No. 304, stating that highway culverts are subject to the Washington State law requiring fish passage at stream obstructions.

3.51 The principal State road- and land-managing agencies, and consequently the principal agencies responsible for state-owned stream crossing culverts, are Washington State Department of Transportation ("WSDOT"), Washington Department of Natural Resources ("WDNR"), WDFW and State Parks. WSDOT is not the principal land-owning agency in the Case Area.

3.52 The WSDOT is the State agency responsible for constructing and maintaining State Highways so that, when the highways cross fish bearing streams, fish passage is not obstructed.

3.53 The WDNR manages State trust lands within the Case Area and it manages an extensive network of roads on those lands, many of which cross streams bearing salmon.

3.54 The WDFW owns or manages Wildlife Areas and other lands in the Case Area that contain roads that cross streams bearing salmon. Some of the streams are routed through culverts under these roads.

3.55 In the early 1990's WSDOT commenced a project with the WDFW to identify barrier culverts under State highways.

3.56 In 1997 the State initiated efforts to identify and correct barrier culverts on lands owned or managed by WDFW.

3.57 In 1998 the State initiated efforts to identify and correct barrier culverts owned by the WDNR and located on its forest lands.

3.58 The State began an effort to identify barrier culverts on State Parks' lands in 2001.

3.59 State Parks hired WDFW to identify barrier culverts on its lands within the Case Area, but the contract has expired.

3.60 WDNR differed from the other state agencies (WDFW, WSDOT, and State Parks) in the way it assessed fish bearing streams.

3.61 The WDFW maintains a database called the Fish Passage and Diversion Screening Inventory database (FPDSI) that contains data from culvert inventories that WDFW has conducted or that other governmental and private entities have submitted to WDFW. The WDNR maintains a separate database for its culverts. The State has not generated a consolidated list of barrier culverts owned by the different State agencies.

3.62 Because the FPDSI is a live database that is regularly edited and updated, inventory numbers relate only for a specified date. Inventory numbers also depend on distinguishing between numbers of barriers, which may include structures other than culverts; numbers of sites, which may include more

than one culvert; and between sites that affect "fish," "anadromous fish," which include bull trout, sea run cutthroat trout, and kokanee or just "salmon."

3.63 As of March 2009, the WDFW culvert database showed 1215 anadromous and resident fish passage barrier culverts under WSDOT roads in the Case Area. Of these, 807 barriers had more than 200 meters of anadromous salmonid habitat upstream. Included within the 807 barrier culverts are some 20-30 sites that are barriers only to bull trout, sea run cutthroat trout, or kokanee.

3.64 In December 2000, WDNR completed its formal inventory efforts to identify barrier culverts at stream crossings on its forest roads statewide within lands that it owned as of that year. Since that date, WDNR has not conducted a formal culvert inventory.

3.65 The initial WDNR barrier culvert inventory, completed in 2001, identified potential barrier culvert sites using road maps and stream location maps that contain inaccuracies and omissions of both streams and roads.

3.66 Because of assumptions made during the WDNR inventory process, WDNR's barrier culvert inventory included some culverts on streams that do not have fish, and excluded some blocking culverts where salmon are present. WDNR, Plaintiff Tribes and others have identified additional fish-bearing streams on WDNR lands, and additional barrier culverts under WDNR roads, which were not identified during WDNR's formal inventory.

3.67 As part of its program to consolidate its upland holdings in the state, WDNR sells, purchases

or exchanges forestlands on a monthly basis. When WDNR adds to, reduces, or exchanges its upland holdings, it affects both the number of roads and culverts beneath those roads. These additional culverts undergo a preliminary assessment for fish passage during the exchange appraisal process and are included in WDNR's inventory once the purchase or exchange is finalized.

3.68 Following the completion of WDNR's culvert inventory in 2001 and taking into account adjustments to the inventory, WDNR identified 860 culverts within the Case Area to remediate because they were barriers to either resident or anadromous fish. As of April 2009, the WDNR culvert database showed 455 remaining culverts that are barriers to either resident or anadromous fish under roads it manages on lands within the Case Area. As of April 2009, WDNR has identified 228 culverts within the Case Area which are anadromous barriers.

3.69 In 2007, WDFW completed its efforts to identify barrier culverts at stream-road crossings on lands it owns or manages in the Case Area except for some water access sites and lands WDFW acquired within the past 2 years. Because its initial inventory has not been fully completed statewide, WDFW has not yet developed a plan for reassessing WDFW-owned culverts that WDFW has previously determined to be passable.

3.70 As of March 2009, the WDFW culvert database showed 89 fish passage barrier culverts on State Parks lands within the Case Area, of which 28 have at least 200 meters of salmon habitat both

upstream and downstream. State Parks has corrected one of its barrier culverts in the Case Area.

3.71 As of July 2009, WDFW had identified 71 fish passage barrier culverts under roads on its lands in the Case Area, of which 51 have at least 200 meters of salmon habitat both upstream and downstream.

CULVERT INVENTORY, ASSESSMENT, AND PRIORITIZATION

3.72 Before 1998, to determine whether a culvert passed fish, the State relied upon the professional judgment of biologists and engineers. In the 1990s, the WDFW published a standardized methodology for assessing culverts for fish passage. The most recent version is entitled *Fish Passage Barrier and Surface Water Diversion Screening Assessment and Prioritization Manual* (WDFW 2000) (Exhibits AT-051 and W-087-E) (hereinafter referred to as WDFW's *Assessment Manual* (2000)). Some Tribes and federal agencies have used the WDFW methodology to assess culverts for fish passage.

3.73 Since 1998, to determine whether a culvert meets the maximum velocity and other requirements of WAC 220-110-070 (3)(b)(ii) (Exhibit W-089-F), WDFW has relied on evaluation of physical characteristics of the culvert. WDFW refers to this as a "Level A" barrier assessment. This assessment is described in WDFW's *Assessment Manual* (2000) (Exhibits AT-051 and W-087-E).

3.74 In some cases, WDFW considers physical characteristics of the culvert insufficient by themselves to assess barrier status. In such cases it assesses the potential barrier using hydraulic

calculations, known as a "Level B" analysis. This assessment is described in WDFW's *Assessment Manual* (2000) (Exhibits AT-051 and W-087-E).

3.75 Level B barrier assessment requires a determination of the area of drainage basin upstream of the culvert. Level B assessment is difficult or impossible in many cases, particularly for sites within floodplains or tidal streams or having multiple parallel culverts, or culverts set at an unusual gradient.

3.76 Because streams are dynamic in nature, periodic re-assessment or monitoring of culverts is necessary.

3.77 WDFW uses the hydraulic criteria for adult trout in Table 1 of WAC 220-110-070(3) (Exhibit W-089-F) to determine whether or not a culvert is a barrier to juvenile salmon.

3.78 The WDFW developed the Priority Index methodology as a tool for organizing information, to help decision-makers prioritize culverts for correction. It is not law. Although the State calculates Priority Index values for many of its barrier culverts, those values do not control the order in which culverts are repaired and do not represent a "priority list." Other factors may cause a culvert with a lower PI score to be corrected before a culvert with a higher PI score.

3.79 In its initial inventory completed in 2001, WDNR determined Priority Index values ("PI values") for barrier culverts. WDNR has not updated those values subsequently, nor has it determined PI values for barrier culverts that were not identified in the initial inventory.

3.80 Each of WDNR's regions has its own protocols that it follows to reassess habitat.

3.81 Because of the time and expense associated with determining habitat gain in the field, WDNR has used a GIS-based process to calculate the habitat gain. Since 2001, WDNR regions have used the RMAP process and their own prioritization methods to determine when barriers will be removed.

3.82 WDNR does not have direct knowledge of all of the culverts located upstream or downstream of its culverts.

3.83 The relative location (upstream or downstream) of barrier culverts in relation to one another is not uniformly maintained in the State's Fish Passage and Diversion Screening Inventory (FPDSI) database.

3.84 The WDFW, under a contract with WSDOT, has been assessing the extent and condition of habitat above and below WSDOT barrier culverts in order to help prioritize corrections.

3.85 As of October, 2009, the WDFW estimated that it will complete its habitat assessments and prioritization for all WSDOT barrier culverts in the Case Area by January 2013, assuming present staffing levels. Priority Index values have not been calculated for every fish barrier. In the absence of complete habitat assessment information, it is possible to create a Surrogate PI (SPI) using Geographic Information Systems (GIS) data. WDFW sometimes uses surrogate PIs to decide where to focus habitat assessment efforts before identifying projects for scoping.

3.86 Fishery scientists use marine survival rates to annually estimate how many Coho salmon smolts will survive to enter fisheries as adults. These annual estimates of adult abundance, by stock, are compared to the average stock abundance during the FRAM Coho Base Period and that proportion is used in annual pre-season modeling – designated as a stock specific "Abundance Scalar". These stock scalars vary from year to year as they reflect both the environmental conditions that produced the out-migrating smolts (freshwater survival) and the resulting adults (marine survival).

STATE CULVERT CORRECTION PROGRAMS

3.87 In 1990, WDFW and WSDOT executed a Memorandum of Understanding Concerning Compliance With the Hydraulic Code (Exhibits AT-153 and W-087-B). Among other things, the agencies agreed to conduct an inventory of fish passage barriers on WSDOT rights-of-way.

3.88 In 1997, the Washington State legislature created the Fish Passage Task Force.

3.89 In December 1997, the Fish Passage Task Force reported to the State legislature that fish passage barrier culverts are a "key factor" in the wild salmon equation. It concluded that "Clearly, the creation of new barriers must be prevented and the rate of barrier correction must be accelerated if Washington wild salmon and trout stocks are to recover." Since 1997, the state agencies have identified fish passage barriers under their roads and have accelerated the rate of correction of such barriers.

3.90 The WDFW and State Parks each have asserted a goal of correcting their barrier culverts by July 2016.

3.91 The State currently has set no deadline for the WSDOT to correct all of its barrier culverts.

3.92 The primary factor determining the rate at which the State can correct fish barrier culverts is the level of funding for such corrections.

3.93 The WDFW determines that a barrier culvert is "corrected" when it has been removed, replaced or modified in such a way as to meet the hydraulic design criteria of WAC 220-110-070(3) (Exhibit W-089-F).

3.94 According to the WDFW *Assessment Manual* (Exhibits AT-051 and W-087-E), "A significant reach is defined as a section of stream having at least 200 linear meters of useable habitat without a gradient or natural point barrier. . . . An exception to the significant reach threshold may occur if high quality . . . habitat exists upstream of the barrier in anadromous waters."

3.95 WSDOT-owned culverts that are fish passage barriers are largely remediated through two different funding structures. First, fish barriers can be remediated as part of a capital construction project when the barriers fall within the boundaries of a highway construction project. This funding comes from the capital part of the Transportation budget. Second, fish passage barriers can be addressed with funding from the WSDOT I-4 (aka, Environmental Retrofit) budget.

3.96 WSDOT and WDFW have agreed pursuant to a Memorandum of Agreement (W-093-G) that barrier culverts shall be corrected as part of a highway project when in-stream work at the site of the culvert requires that WSDOT obtain a Hydraulic Project Approval ("HPA").

3.97 The Washington State Salmon Recovery Funding Board has no record of WSDOT ever receiving grant award funds towards a culvert or fish passage project.

3.98 WDFW has received grants for culvert inventory work, but as of January 2009, not for culvert correction or monitoring.

3.99 About 20% of WDNR's barrier remediation projects have been accomplished by requiring timber purchasers to correct culverts as part of a timber sale contract. WDNR pays for corrections to its barrier culverts not remediated by timber purchasers principally through fees on timber sales that are credited to the Access Road Revolving Fund ("ARRF Fund"). The ARRF Fund is a non-appropriated account managed by the WDNR to maintain, repair, and reconstruct access roads, or public roads used to provide access to public lands. RCW 79.38.050. WDNR also uses grant funds and FEMA funds to correct small numbers of culverts.

3.100 For the biennia covering the period from 2007-11, WDNR did not request any appropriations of general funds from the State legislature for correction of barrier culverts on state-owned trust lands. WDNR requested such funds in its proposed budget for the 2005-2007 biennium and in prior biennia for other road maintenance work, but the requested funds were

not appropriated by the legislature. WDNR requested and received general fund monies for seven barrier culvert remediation projects on non-trust lands dedicated to conservation (called Natural Area Preserves and Natural Resource Conservation Areas).

3.101 The funding available from the ARRF Fund for culvert corrections, and the number corrected as part of timber sales, depend in part on the volume and price of timber sold and harvested from WDNR lands.

3.102 Before 2001, WDNR had no deadline for correcting its fish passage barrier culverts.

3.103 Prior to 2006, the WDNR did not have sufficient funding to correct all of its barrier culverts by July 2016.

3.104 WDNR believes it will be able to correct its anadromous barrier culverts within the Case Area prior to July 2016, which is the deadline set by State law.

3.105 State agencies request separate appropriations for their operating and capital budgets. The budget requests for WDFW, WDNR and State Parks are made as part of the general budget and WSDOT's budget requests are included in a separate transportation budget. Funds for culvert work on lands or roads an agency manages may fall within its capital budget or its operating budget, or the transportation budget.

3.106 As of January 2009, WDFW reports that it has expended approximately $2,000,000 to fix state-owned barriers in the Case Area since 1999. WDFW includes dams, fishways as well as culverts in "state

owned barriers." Also included within the $2,000,000 was some post-construction monitoring.

3.107 WDFW has prepared a 10-year project planning document for correcting by July 2016 its statewide fish passage barriers.

3.108 The WDNR has determined the average cost of remediating its barrier culverts as follows:

a) no slope design method: $41,000

b) stream simulation design method: $54,000

c) bridge: $123,000.

The average of all three types of structures is approximately $81,000. However, none of those figures includes costs for the engineering related to the design of the replacement structure, which are typically around 10% of the total project cost. WDNR estimates the average cost to remove a culvert from a forest road that is being abandoned is $13,000.

3.109 WDFW estimates that the average cost to correct its fish passage barriers is $230,000 in 2008 dollars.

3.110 In the transportation budget, the State legislature may re-appropriate funds not expended by the end of the biennium. Such re-appropriations are made at the subprogram level and are not project specific.

3.111 WSDOT has tracked the costs of performing stand-alone barrier correction projects through its I-4 Environmental Retrofit program. WSDOT has not been able to track the costs of corrections undertaken as part of a larger highway improvement project because the barrier replacement

costs are not easily segregated from the cost of the rest of the project. For example, documentation of the costs of cement is typically for the entire project, without an easy way to extract how much was exclusively used for the culvert construction.

3.112 The funding source (federal versus state), the bidding environment, and labor laws can all affect the cost of the project.

3.113 The Washington State Legislature could designate specific additional revenue sources for fish passage barrier remediation in a manner similar to the current "Nickel" (5 cent per gallon special gasoline tax) or Transportation Partnership Act ("TPA") (9.5 cent per gallon special gas tax) programs either as additional programs or when the current Nickel and TPA programs expire.

3.114 The State Legislature could reprioritize some portions of the Transportation Budget to increase funding for fish passage barrier remediation, but only at the expense of other projects and responsibilities.

3.115 Current bidding on WSDOT construction projects is typically running 15 to 20 per cent lower than the WSDOT engineers' pre-bid estimates of project costs.

3.116 WSDOT highway construction projects are categorized as either improvement or preservation programs within the state transportation budget. WSDOT improvement projects are aimed at correcting specific deficiencies within the transportation system or network. WSDOT's improvement program consists of both safety and

mobility projects. WSDOT preservation projects are aimed at preserving at-risk roads and bridges.

3.117 In addition to the fish passage retrofit barrier program, both the chronic environmental deficiencies (CED) program and the stormwater retrofit program provide benefits to fish survival. Chronic environmental deficiencies are locations along the state highway system where recent, frequent, and chronic maintenance needs are causing impacts to fish and fish habitat. An example of a CED is erosion of a road prism from a stream close to a state highway.

3.118 WSDOT mobility projects typically consider barrier corrections when known and when HPAs are required. Since 1991, WSDOT has completed 143 fish passage projects statewide in the course of Transportation projects, of which 32 require additional work to meet current passage criteria.

3.119 Culverts owned by WDNR, WDFW and State Parks are generally found underneath narrow unpaved roads which carry a smaller amount of traffic compared to the average state highway. For these reasons, the cost of correcting these culverts is less than the cost of correcting culverts under state highways.

3.120 The budget for WSDOT is largely funded from the 37.5 cents per gallon gas tax. The projected revenue from the gas tax for the 2009-2011 biennium based on the March 2009 forecast is $2.653 billion. This tax is directed into the Motor Vehicle Fund for disbursement. An additional $373 million is projected to be collected from licenses, permits, and fees that is available to be paid into the Motor Vehicle Fund.

3.121 The net disbursement of the 37.5 cents per gallon tax is as follows: 9.5 cents is dedicated to projects specified in the Transportation Partnership Act ("TPA") that was enacted in 2005. The 9.5 cent TPA tax was enacted with restrictions that the revenue raised by the tax can only be spent on projects that have been specified and approved by the legislature. Another 5 cents of the gas tax is dedicated to the projects specified by the Legislature when the Nickel tax was passed. The Nickel tax is scheduled to sunset when the projects specified by the Legislature have been completed and the bond debt has been retired. The cities and counties receive 11 cents from the gas tax revenue. Another 4 cents of the gas tax revenue is dedicated to paying bond debt.

MONITORING AND MAINTENANCE

3.122 Culverts have a hydraulic design life of 30 to 80 years, depending on their material and other factors.

3.123 All culverts will require some level of maintenance during their useful life to ensure hydraulic function.

3.124 The parties are unaware of any studies that have estimated or determined the rate at which currently passable culverts may become fish passage barriers in the future or identified methods for estimating or determining such rates.

3.125 Culverts that are not fish passage barriers when installed may become barriers over time due to erosion, hydrologic changes, and other natural processes.

3.126 WDFW monitors WSDOT barrier culvert correction projects built with dedicated funding for one year after construction. WDFW conducts spawner surveys on some culverts that have been corrected to verify that adult salmon are getting through the new structure and spawning upstream of it. Projects that failed to meet fish passage criteria are listed as barriers in the Fish Passage and Diversion Screening Inventory database and/or scoped and programmed for correction along with other barriers.

3.127 The Forest Practices Rules require WDNR to maintain fish passage in its culverts. After major storm events, WDNR visually inspects large culverts for damage.

3.128 Fishways are formal structures that include specific features to optimize fish-passage conditions, providing maximum vertical gain over a given distance. Fishways applied at culverts typically consist of a series of pools separated by weirs that control the elevation differential between pools.

3.129 Fishways require regular inspection and maintenance.

3.130 WSDOT contracts with WDFW to inspect its fishways.

SALMON RECOVERY EFFORTS

3.131 The WDFW has recognized that culverts must be corrected in order to accomplish the State's salmon recovery efforts and to comply with several laws including fish passage laws and the new Forest Practices Rules.

3.132 The State Salmon Recovery Funding Board has worked with Indian Tribes and others to

correct fish passage barrier culverts with the result that habitat previously inaccessible to fish has become accessible. Since 1999, the SRF Board has awarded funds for salmon habitat restoration projects, such as placement of large woody debris, planting of riparian vegetation, and removal of fish passage barrier culverts. The primary sources of SRF Board funding are the Washington State Legislature and the federal Pacific Coastal Salmon Recovery Fund.

3.133 None of the recovery plans identified in the Statewide Strategy to Recover Salmon, *i.e.*, recovery plans for Puget Sound Chinook; Hood Canal Summer Chum; Lower Columbia Chum; Lower Columbia Steelhead; Lower Columbia Chinook; Lower Columbia Coho; Middle Columbia Steelhead; Upper Columbia Steelhead; Upper Columbia Chinook; Snake River Spring Chinook; and Snake River Steelhead, obligate any party other than the National Marine Fisheries Service and thus are neither enforceable nor regulatory.

3.134 The federal government provides some of the funds spent by the State for correction of barrier culverts and for other salmon recovery activities. Much of the grant money awarded by the Salmon Recovery Funding Board comes from the Pacific Coastal Salmon Recovery Fund. Tribes have been the recipients of some of these funds. Pretrial Order, Dkt. # 614, pp. 5-30.

This concludes the admitted facts. The Court further finds as follows:

4. At the time of trial in 2009, WDFW had identified 807 WSDOT barrier culverts which blocked more than 200 meters of salmon habitat upstream of

the culvert. Admitted Fact 3.63. Fisheries scientists have identified approximately 1,000 miles of stream, comprising nearly 4.8 million square meters of stream habitat upstream of blocked culverts. State Exhibit AT-323. This habitat is unavailable to salmon moving upstream to spawn.

5. The correction of human-caused barriers is recognized as the highest priority for restoring salmon habitat in the Case Area. Declaration of Mike Henry, Ex. AT-004.

6. Fish, especially salmon, continue to be an important part of the Tribes' history, identity, and culture.

7. Salmon abundance has declined precipitously from treaty times, but particularly in the last few decades. Numerous salmon stocks that originate or are fished in the Case Area have been listed as threatened or endangered under the Endangered Species Act ("ESA"). These stocks include Puget Sound Chinook, Lower Columbia River Chinook, Ozette Lake Sockeye, Puget Sound Steelhead, and Hood Canal Summer Run Chum.

8. Both treaty and non-treaty harvests have declined substantially since the time of the first decision in *U.S. v. Washington*, 384 F. Supp. 312 (W.D. Wash. 1974) ("Boldt Decision").

9. The decline in abundance of salmon has greatly reduced fishing opportunities for the Tribes. Tribal members have been forced to greatly limit the amount of time they fish, and the areas fished. The reduced fishing opportunity has contributed to a

decline in the number of tribal members who are now engaged in the traditional activity of fishing.

10. The reduced abundance of salmon and the consequent reduction in tribal harvests has damaged tribal economies, has left individual tribal members unable to earn a living by fishing, and has caused cultural and social harm to the Tribes in addition to the economic harm.

11. Tribal members learn fishing skills from older members of the Tribe. Reduced fishing opportunities interfere with the learning process for younger fishermen and women.

12. Reduced salmon harvests interfere with the Tribes' traditional First Salmon Ceremonies, which traditionally utilize fish from local streams. Tribal members are also less able to provide salmon for other ceremonies such as naming ceremonies, weddings, and other gatherings.

13. The Tribes are at present unable to harvest sufficient salmon to meet their needs and provide a livelihood for those tribal members who desire to fish for salmon for a living.

14. Salmon production is directly related to the amount and quality of habitat available. Loss and degradation of habitat have greatly reduced salmon production in the Case Area.

15. Cyclical patterns in ocean conditions and other natural disturbances cannot account for the persistent, long-term downward trend in Case Area salmon populations.

16. Reductions in salmon harvests by tribal and non-tribal fishers, leaving more adult fish to spawn,

will not result in substantial increases in salmon production unless accompanied by gains in habitat, particularly spawning ground.

17. A fish passage barrier culvert is a culvert that impedes the passage of any life stage of any species of anadromous fish at any flow level which would allow the passage of fish, but for the culvert. This includes all culverts identified as barrier culverts under the 2000 WDFW Barrier Assessment manual.

18. The Washington Administrative Code ("WAC") contains rules and expresses policies governing state agencies. WAC 220-110-010 under the Hydraulic Code Rules states that it is the intent of WDFW to provide protection for all fish life through a statewide system of "consistent and predictable rules." The technology provisions of WAC 110 represent "common provisions for the protection of fish life for typical projects proposed to the department." *Id.* The regulations represent "the best available science and practices related to protection of fish life." *Id.*

19. WAC regulations applicable to the Washington Forest Practices Board provide that "[t]o protect water quality and riparian habitat, roads must be constructed and maintained in a manner that will prevent potential or actual damage to public resources." WAC 222-24-010(2). This "will be accomplished by constructing and maintaining roads so as not to result in the delivery of sediment and surface water . . . in amounts that preclude achieving desired fish habitat and water quality" and by "providing for fish passage at all life states" (referring to the WDFW Hydraulic Code). *Id.*

20. Fish passage barrier culverts have a negative impact on spawning success, growth and survival of young salmon, upstream and downstream migration, and overall production. According to "Extinction is Not an Option: Statewide Strategy to Recover Salmon" (September 1999),

> Unnatural physical barriers interrupt adult and juvenile salmonid passage in many streams, **reducing productivity and eliminating some populations**. Barriers may also cause poor water quality (such as elevated temperature or low dissolved oxygen levels) and unnatural sediment deposition. Impaired fish access is one of the more significant factors limiting salmonid productivity in many watersheds.
>
> Fish blockages or barriers are caused by dams, culverts, tide gates, dikes, and other instream structures. . . . **These structures block fish access to an estimated 3,000 miles of freshwater spawning and rearing habitat.**
>
> Ex. AT-114, at II.17-18 (emphasis added).

21. Young salmon, which do not have the swimming power of adults, are more easily blocked by barrier culverts. As a result, they may never migrate to the ocean, reach maturity, and return to spawn.

22. The negative effect of culverts is not limited to blocking actual passage of fish and preventing them from reaching spawning grounds. Improperly designed culverts may result in loss of spawning and rearing habitat due to shortening and simplification of the channel, loss of pools and other complex

habitats, elimination of riparian vegetation, changes in litter and food sources, improper filtration of sediment, and other adverse impacts on the stream. Testimony of Dr. Martin Fox, AT-001, p. 2.

23. Culverts may also cause negative effects on stream quality and fish habitat by altering the water velocity, which may cause sedimentation or erosion, and may ultimately result in a "perched" culvert which is a barrier to upstream fish movement. Red Cabin Creek on State Route 520 provides an example of a culvert filled with sediment. AT-010-8 to AT-010-12. A culvert blocked with sediment may divert water into adjacent ditches and channel, causing erosion and stranding fish, leading to additional mortality of adult and juvenile salmon. AT-010-13.

24. Culverts which are improperly designed, installed, or maintained may completely bar salmon from access and cause local extirpation of a run. Testimony of Mike McHenry, AT-004, p. 4. For example, Chinook salmon from Pysht River and Morse Creek on the Olympic Peninsula are locally extirpated. *Id.*, p. 3.

25. A 1994 analysis of loss of coho salmon production in the Skagit River watershed determined that 6% to 13% of the loss throughout the watershed was attributable to barrier culverts. When tributaries alone were analyzed, 44% to 58% of the loss of salmon production was attributable to barrier culverts. AT-010, p. 10.

26. Culverts which do not allow the downstream movement of woody debris and sediment have a negative impact on the downstream spawning grounds and general stream habitat. Such culverts

also may become blocked with debris and fail during high water events, causing severe erosion and damage to habitat downstream. The effect on salmon populations can be "devastating." Testimony of Lawrence Wasserman, AT-010, p. 28.

27. State-owned barrier culverts are so numerous and affect such a large area that they have a significant total impact on salmon production. WDFW categorizes culverts as blocking "significant habitat" when there is at least 200 meters of inaccessible habitat upstream of the culvert. As of the trial date in 2009, there were 1,114 state-owned culverts in the Case Area, including at least 886 that blocked "significant habitat," including 807 such culverts under roads built or maintained by WSDOT, 28 under the control of State parks, and 51 under the control of WDFW. WDFW records showed at that time that State-owned barrier culverts blocked salmon access to an estimated 1,000 miles of stream and nearly five million square meters of habitat. Admitted Facts 3.64 - 3.71. A WSDOT spreadsheet inventory of the culverts and the amount of spawning and rearing habitat blocked by each appears in the record at AT-323.

28. In the year of the trial and two following years, 2009 - 2011, WSDOT completed twentyfour barrier culvert replacement projects. Tribes' Post-Trial Supplemental Brief, Dkt. # 751, p.5; Declaration

of Alix Foster, Dkt. # 749, Exhibit A, pp. 8-15.[2] Tables 5 and 7 in the WSDOT *Fish Passage Barrier Inventory: Progress Performance Report* (July 2012) ("2012 Barrier Inventory") provide these figures for Regions 1, 2, and 3 (Northwest, North Central, and Olympic Regions). (Twenty-five projects are listed for the years 2009 - 2011, but one, at Wagley's Creek, is a dam removal rather that replacement of a culvert.) At this rate of eight projects per year, assuming no new barrier culverts were to develop, it would take the State more than 100 years to replace the "significantly blocking" WSDOT barrier culverts that existed in 2009.

29. Estimates based on an assumption of no new barrier culverts are unsound, as new barrier culverts have in fact been identified since 2009. WSDOT reported 1,158 fish passage barrier culverts in the Northwest and Olympic Regions in 2009. *See*, WSDOT *Fish Passage Barrier Inventory: Progress Performance Report* (July 2009) ("2009 Barrier

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[2] This supplemental brief and supporting declarations were filed at the Court's direction. The Court requested supplemental memoranda of the parties to address changes in the facts that may have occurred since the time of trial. The Declaration of Alix Foster presents facts that appear in the WSDOT *Fish Passage Inventory Progress Performance Report* (July 2012), a State document of which the Court may take judicial notice. The document is available online at www.wsdot.wa.gov/ and a copy of this document is attached as Attachment B to this Order.

Inventory"), AT-072, p. 7. The 2012 WSDOT report lists a total of 1,236 fish passage barriers culverts in these same two regions. The number of barriers with significant habitat gain in these two regions alone has **increased** from 883 to 930. *Compare*, Table 2 in the 2009 Barrier Inventory with Table 2 in the 2012 Barrier Inventory (attached as Attachment B to this Memorandum and Order).

30. According to the Declaration of Paul Wagner filed in support of the State's supplemental memorandum, WSDOT works with WDFW to reassess barrier culverts. This reassessment leads to the statewide totals reported in the 2012 Barrier Inventory. Declaration of Paul Wagner, Dkt. # 746, ¶ 8. As of the date of that report, the total number of WSDOT fish passage barriers, state-wide, was 1,988, of which 1,519 were barriers with significant habitat gain. *Id*; 2012 Barrier Inventory, Table 2. Of the 1,519 barriers with significant habitat gain, 817 lie within the Case Area. *Id.*, ¶ 8.

31. The increase in the total number of WSDOT barrier culverts has occurred despite the fact that twenty-four barrier culverts in the Case Area have been corrected since 2009. Extrapolation from these data would lead to the untenable conclusion that under the current State approach, the problem of WSDOT barrier culverts in the Case Area will never be solved.

30. WDFW and DNR have achieved greater success than WSDOT in constructing remedies for barrier culverts. From 2009 through 2012, WDFW remedied twenty-eight barrier culverts in the Case Area, resulting in 46,415 linear meters of habitat gain

upstream of these culverts. Declaration of Julie Hennings, Dkt. # 744, ¶¶ 5, 9-10. This work was the result of appropriations to WDFW by the legislature of $1,000,000 for the 2009-11 biennium and $2,731,000 in the 2011-13 biennium. *Id.*, ¶¶ 9, 10. An additional $1,495,000 was appropriated in 2012 from the Jobs Now! Act to correct fish passage barriers on WDFW land, of which $810,000 was for correction of culverts within the Case Area. *Id.*, ¶ 10.

31. As of January 29, 2013, there remained fourteen culverts which blocked more than 200 meters of salmon and steelhead habitat on WDFW lands in the Case Area, and another five culverts which blocked less than 200 meters of anadromous fish habitat in the Case Area. Declaration of July Hennings, Dkt. # 744, ¶ 6.

32. From 2009 through 2012, DNR remediated 126 barrier culverts in the Case Area. Declaration of Alex Nagygyor, Dkt. # 740, ¶ 5. DNR has eighty-seven culverts which pose barriers to anadromous fish remaining at this time. *Id.*

33. Most of the funds available to DNR for correcting barrier culverts come from the Access Road Revolving Fund ("AARF"), which is derived from income from timber sales. *Id.*, ¶ 10. During the 2011 to 2013 biennium, DNR also received $5,700,000 from the State's Capital Budget (Building and Construction Account) for Road Maintenance and Repair Plan ("RMAP") work, which includes culvert repair. *Id.*, ¶ 11. DNR has received additional funds, totaling $4,000,000 from FEMA (Federal Emergency Management Agency). *Id*, ¶ 12.

34. State Parks has corrected one barrier culvert since the 2009 trial. Declaration of Deborah Peterson, Dkt. # 742, ¶ 7. It is estimated that twenty-three significant barrier culverts remain in the Case Area on land under the control of State parks. *Id.*, ¶ 5.

35. The State Forest Practice Board has promulgated regulations under the Forest Practices Act which provides that the goals for road maintenance and culvert replacement established in WAC 222-24-010 (set forth in relevant part above in FF 19) are "expected to be achieved by October 31, 2016." WAC 222-24-050. This regulation is binding on DNR and has been adopted by WDFW and State parks. *See,* Admitted Fact 3.90. The original date of July 1, 2016 has been extended to October 31, 2016. Declaration of Alex Nagygyor, Dkt. # 740, ¶ 15.

36. WDFW has stated its intention to remedy six of the remaining fourteen culverts which block more than 200 meters of upstream habitat before the 2016 deadline. *Id.*, ¶ 12. WDFW represents that the remaining eight culverts pose challenges such as interference with hatchery operations, or access issues, which it will discuss with the Tribes. *Id.*

37. If DNR maintains the rate of barrier correction that it has achieved over the past three years, the remaining eighty-seven barrier culverts will be corrected by the 2016 deadline. Declaration of Alex Nagygyor, Dkt. # 740, ¶ 16.

38. Correction of fish passage barrier culverts is a cost-effective and scientifically sound method of salmon habitat restoration. It provides immediate benefit in terms of salmon production, as salmon

rapidly re-colonize the upstream area and returning adults spawn there. Exhibit AT-004, p. 12.

39. Restoration of salmon runs through correction of State-owned culverts benefits both Tribal and non-Tribal fisherman.

40. Species listed under the Endangered Species Act (Puget Sound Chinook, Hood Canal summer chum salmon, and Puget Sound steelhead) are monitored by the National Marine Fisheries Service (NMFS). The data and conclusions are published in periodic status reviews. Plaintiff United States of America presented selected pages from the NMFS December 10, 2010 *Status Review Update for Pacific Salmon and Steelhead Listed under the Endangered Species Act.* Declaration of Yvonne Marsh, Dkt. # 736, Exhibit 1. The status report identifies risk factors for Puget Sound Chinook as "high fractions of hatchery fish in many populations and widespread loss and degradation of habitat." *Id.*, p. 2. Noting a recent decline in productivity of the Hood Canal summer chum salmon, the status report suggests that "improvements in habitat and ecosystem function [are] needed." *Id.*, p. 3. For Puget Sound steelhead, the status report makes the alarming observation that "steelhead in the Puget Sound DPS [distinct population segment] remain at risk of extinction throughout all or a significant portion of their range in the foreseeable future. . ." *Id.*, p. 4. The Biological Review Team identified "degradation and fragmentation of freshwater habitat, with consequent effects on connectivity, as a primary limiting factor and threat facing the Puget Sound steelhead DPS." *Id.*

41. NMFS is responsible for implementing Section 7 of the Endangered Species Act (ESA) for actions that affect habitat of threatened or endangered species. Federally funded or permitted actions by the State of Washington which affect anadromous fish, such as repair or replacement of culverts, require consultation with NMFS under Section 7 and, where the action potentially effects listed species, the preparation of a biological opinion. Declaration of Steven Landing, Dkt. # 737, ¶¶ 1-2. NMFS has issued programmatic biological opinions that address culvert repair and replacement by the State of Washington to streamline the process. If the project satisfies certain design criteria, the federal agency can issue a permit or provide funding without further Section 7 consultation with NMFS. *Id.*, ¶ 3.

42. On December 12, 2012, NMFS issued a programmatic biological opinion for the Federal Highway Administration (FHWA) and Army Corps of Engineers for the WSDOT's Preservation, Improvement, and Maintenance Activities program. This programmatic opinion covers projects conducted by WSDOT, including projects within the Case Area, which are funded by the FHWA, or permitted by the Corps, and include specified activities such as culvert repair and replacement. *Id.*, ¶ 5. There is an even more streamlined "fast track" process for projects that involve culverts which block passage of ESA-listed species. *Id.*, ¶ 6.

43. In order to qualify for these expedited permits, projects that replace culverts on streams with listed species must apply the WDFW stream simulation or no-slope design criteria. These design

criteria are relied upon by NMFS to ensure fish passage. *Id.*, ¶ 7.

44. The State of Washington has invested a great deal of time and money in developing the Fish Passage Priority Index referred to in FF 3.78. WSDOT has invested $3,800,00 for fish passage barrier inventory and prioritization since October, 2009. Declaration of Paul Wagner, Dkt. # 746, ¶ 6. In the 2009-2011 biennium, WSDOT and WDFW began to reassess culverts thought to have the highest likelihood of becoming barriers, in order to evaluate their current status. *Id.*, ¶ 8. This reassessment led to the July2012 statewide totals listed in FF 29-30. Nowhere in this declaration does Mr. Wagner connect the twenty-four culverts that were corrected by WSDOT within the Case Area in 2009 - 2011 (FF 28) with the assessment and prioritization process.

45. Only four of the twenty-four fish passage barriers corrected by WSDOT in 2009 - 2011 were among the 163 culverts identified by the State for priority in correction. *See,* State of Washington Post-Trial Brief, Dkt. # 663, p. 13-14; AT-323; 2012 Barrier Inventory, Tables 5 and 7.

46. Priority Index numbers range from 1 to 62. Declaration of Michael Barber, W-088, ¶ 12. The higher the number, the higher the priority to fix the culvert. As of 2009, most (but not all) WSDOT barrier culverts with a PI greater than 20, and no additional barrier culverts in the watershed, had been fixed. *Id.*

47. PI numbers for the twenty-four WSDOT culverts which were repaired or replaced in the Case Area in 2009 - 2011 ranged from 6.36 (Yarrow Creek tributary on SR 520) to 26.44 (Terrell Creek culvert

replacement on SR 542). 2012 Barrier Inventory, Tables 5 and 7.

48. The State of Washington asserted at trial that the average cost to replace a WSDOT culvert would be $2,300,000. However, the actual cost of construction for twelve WSDOT stream simulation culvert projects completed prior to the 2009 trial ranged from $413,000 to $1,674,411; the average cost for the twelve was $658,639 each. AT-101, *Fish Passage Projects Completed with Dedicated I-4 Funds.*

49. WSDOT has provided with its supplemental memorandum a table titled "WSDOT Barrier Correction Projects Completed since June 2010." Declaration of Paul Wagner, Dkt. # 746, Exhibit A. The table lists thirty-one barrier correction projects statewide, of which twenty-four used either the stream simulation design or a bridge. Mr. Wagner states that the average cost of these twenty-four WSDOT projects was $1,827,168. *Id.*, ¶ 9. However, it is difficult to confirm this figure from the tables, as eight of the stream simulation culvert projects, along with four of the "no-slope" design projects, have no cost listed. It appears these twelve are the ones described by Mr. Wagner as "constructed and funded as a part of other transportation projects." *Id.*, ¶ 5. See FF 3.111.

50. Full-span bridges across streams, and stream simulation culverts, offer superior fish passage and habitat benefits compared to hydraulic design and no-slope culverts. Stream simulation culverts are less likely than hydraulic design or no-slope culverts to become fish passage barriers in the future. Bridges or stream simulation culverts are the

preferred WSDOT choices. Declaration of Paul Wagner, Dkt. # 746, ¶ 9.

51. Of the fish passage barrier corrections undertaken by WSDOT since 1992, approximately two-thirds have been undertaken as part of a highway maintenance or improvement project, and one third have been "stand-alone" projects funded through the I-4 program.

52. A large portion of WSDOT's funding comes from the United States. According to documents provided with the supplemental memorandum, the State expects to receive over $22,000,000 for fish passage barrier projects from the federal government in the years 2011 to 2017. Declaration of Alix Foster, Dkt. # 749, Exhibit 12. Of this amount, $15,813,000 is expected in the 2013-2015 biennium.

53. Combined with the federal funding for fish passage barrier correction, the State anticipates another $14,425,000 from the 2005 Transportation Partnership Account, for a total of $37,387,000 for fish passage barrier correction in the years 2011-2017. *Id.*

54. The WSDOT budget is separate from the State of Washington operating budget and capital budget, as demonstrated in "A Citizen's Guide to Washington State: 2012 Transportation Budget." Declaration of Alix Foster, Dkt. # 749, Exhibit 10. According to this state document, for the 2011-2013 biennium, the State of Washington budget allocates $60.9 billion to the Operating Budget, $9.9 billion to the Transportation Budget, and $3.7 billion to the Capital Budget. *Id.* The Operating Budget funds day-to-day operations; the Capital Budget funds acquisition and maintenance of buildings and

facilities, including public schools and higher education facilities; and the Transportation Budget funds both operations and capital expenditures for transportation, including road building, maintenance, and repair. *Id.*

55. Of the $9.9 billion budgeted for transportation, $7.88 billion is allocated to WSDOT. *Id.*

56. The separation of the Transportation Budget from the Operating and Capital budgets ensures that money will not be taken from education, social services, or other vital State functions to fund culvert repairs.

57. The largest source of revenue for the Transportation Budget is the state gas tax, which is predicted to comprise 46.4% of the revenue available to transportation services in the 2011 - 2013 biennium. Transportation Revenue Forecast Council: November 2012 Transportation Economic and Revenue Forecasts; Declaration of Alix Foster, Dkt. # 749, Exhibit 11, Figure 2. Under the Washington State Constitution, the gas tax revenue must be devoted exclusively to transportation needs, including correction of barrier culverts under State highways.

58. Total transportation revenues are expected to rise in the years 2012 - 2016, compared to 2008 - 2012. *Id.*, Figure 1. The Fiscal Year 2013 increase in revenue is 5.6% over FY 2012. *Id.* Continued growth is predicted at an annual rate of 1.2% per year over the next ten years. *Id.*

59. Much of this increased funding for transportation could be used to correct WSDOT

barrier culverts at a faster rate than has been maintained previously.

60. There is no evidence that increased funding toward correction of barrier culverts to meet the State's obligations under the Stevens Treaties will compromise safety or mobility programs also funded by the State's Transportation Budget.

CONCLUSIONS OF LAW

1. The Court has jurisdiction over the parties and the subject matter pursuant to Paragraph 25 of the Permanent Injunction, as amended August 11, 1993 ("Paragraph 25"). *U.S. v. Washington*, 384 F. Supp. 312, 419 (W.D. Wash. 1974); C70-9213, Dk.t # 13599. Pursuant to this section, the Court has continuing jurisdiction to determine "whether or not the actions, intended or effected by any party. . . are in conformity with Final Decision #1 or this injunction. . . ." Paragraph 25(a)(1). The construction, maintenance, repair and replacement of culverts are actions effected by the State of Washington which may be evaluated for conformity with Final Decision # 1. The Court also has jurisdiction to consider "[d]isputes concerning the subject matter of this case which the parties have been unable to resolve among themselves," and [s]uch other matters as the court may deem appropriate." Paragraph 25(a)(4), (7). The State and the Tribes have attempted to resolve this issue and have been unable to do so without Court involvement. The Court deems it appropriate to resolve the dispute at this time.

2. The scope of this subproceeding includes only those culverts that block fish passage under State-owned roads. Stipulation of Plaintiffs and State of

Washington Regarding Scope of Sub-Proceeding, Dkt. # 341, ¶ 1.

3. The Court is not limited in granting relief to requiring that culverts identified as blocking fish passage be repaired. The Court may use its equitable powers to formulate a remedy consistent with orders entered in this case. Stipulation, Dkt. # 341, ¶ 2.

4. This Memorandum and Decision incorporates all previous rulings in this subproceeding, including but not limited to rulings on waiver and estoppel, the inapplicability of constitutional defenses asserted by the State of Washington, and the declaratory judgment entered in favor of the Tribes on August 23, 2007. The State of Washington's motion for reconsideration of that ruling, set forth in the post-trial memorandum, is DENIED.

5. The Treaties were negotiated and signed by the parties on the understanding and expectation that the salmon runs were inexhaustible and that salmon would remain abundant forever. Finding of Fact ("FF") 1-2.

6. Salmon stocks in the Case Area have declined alarmingly since treaty times. A primary cause of this decline is habitat degradation, both in breeding habitat (freshwater) and feeding habitat (freshwater and marine areas).

7. One cause of the degradation of salmon habitat is blocked culverts, meaning culverts which do not allow the free passage of both adult and juvenile salmon upstream and downstream. Culverts which block the upstream passage of adult salmon returning

to spawn render large stretches of streambed useless for spawning habitat, and reduce the number of wild salmon produced in that stream. Culverts which block stream areas in which juvenile salmon rear may interfere with their feeding and escapement from predators. Culverts which block the passage of juvenile salmon downstream prevent these salmon from reaching the sea and attaining maturity.

8. Harvests of salmon have declined dramatically since 1985. Some stocks of native salmon have become so depleted that the species is listed as threatened or endangered.

9. Where culverts block passage of fish such that adult salmon cannot swim upstream to spawn and juveniles cannot swim downstream to reach the ocean, those blocked culverts are directly responsible for a demonstrable portion of the diminishment of the salmon runs.

10. The depletion of salmon stocks and the resulting diminished harvests have harmed the Tribes and the individual members economically, culturally, and personally. It is not necessary that the Tribes quantify the amount of loss in order to demonstrate their entitlement to relief from further harm.

11. Non-Tribal fishermen have also been injured economically and personally by the diminished salmon harvests.

12. The Eleventh Amendment to the United States Constitution does not bar the plaintiffs' claims for injunctive relief against the State of Washington.

13. Plaintiffs seeking a permanent injunction must satisfy a four-part test before the Court may grant such relief. The Tribes "must demonstrate (1) that [they have] suffered an irreparable injury; (2) that remedies available at law, such as monetary damages, are inadequate to compensate for that injury; (3) that, considering the balance of hardships between the [parties], a remedy in equity is warranted; and (4) that the public interest would not be disserved by a permanent injunction". *Monsanto Co. v. Geertson See Farms, Inc.*, 130 S.Ct. 2743, 2756 (2010).

14. The Tribes have demonstrated, as set forth above in Findings of Fact 6 - 14, that they have suffered irreparable injury in that their Treaty-based right of taking fish has been impermissibly infringed. The construction and operation of culverts that hinder free passage of fish has reduced the quantity and quality of salmon habitat, prevented access to spawning grounds, reduced salmon production in streams in the Case Area, and diminished the number of salmon available for harvest by Treaty fishermen. The Tribes and their individual members have been harmed economically, socially, educationally, and culturally by the greatly reduced salmon harvests that have resulted from State created or State-maintained fish passage barriers.

15. This injury is ongoing, as efforts by the State to correct the barrier culverts have been insufficient. Despite past State action, a great many barrier culverts still exist, large stretches of potential salmon habitat remain empty of fish, and harvests are still diminished. Remedies at law are inadequate as monetary damages will not adequately compensate

the Tribes and their individual members for these harms. Salmon harvests are important to Tribal members not only economically but in their traditions, culture, and religion; interests for which there is no adequate monetary relief.

16. The balance of hardships tips steeply toward the Tribes in this matter. The promise made to the Tribes that the Stevens Treaties would protect their source of food and commerce was crucial in obtaining their assent to the Treaties' provisions. FF 2; citing *State of Washington v. Washington State Commercial Passenger Fishing Vessel Association*, 443 U.S. 658, 677 (1979). Equity favors requiring the State of Washington to keep the promises upon which the Tribes relied when they ceded huge tracts of land by way of the Treaties.

17. It was the intent of the negotiators, and the Tribes' understanding, that they would be able to meet their own subsistence needs forever, and not become a burden on the State treasury. Order on Cross-Motions for Summary Judgment, Dkt. # 392, p. 10. The Tribes' ability to meet their subsistence and cultural needs is threatened by the depletion of salmon stocks which has resulted from the continued existence of fish passage barriers. State action in the form of acceleration of barrier correction is necessary to remedy this decline in salmon stocks and remove the threats which face the Tribes. The State has the financial ability to accelerate the pace of barrier correction over the next several years and provide relief to the Tribes. FF 48 - 49; 51 - 59. Under state and federal law, barrier culverts must be corrected in any case. Any marginal costs attributable to an accelerated culvert correction schedule are more than

offset by the benefit that will accrue to the Tribes. Increased State spending on barrier correction will not adversely affect state programs such as education or social welfare, because the transportation and general operating budgets are separate. FF 54, 60.

18. The public interest will not be disserved by an injunction. To the contrary, it is in the public's interest, as well as the Tribes' to accelerate the pace of barrier correction. All fishermen, not just Tribal fishermen, will benefit from the increased production of salmon. Commercial fishermen will benefit economically, but recreational fishermen will benefit as well. The general public will benefit from the enhancement of the resource and the increased economic return from fishing in the State of Washington. The general public will also benefit from the environmental benefits of salmon habit restoration.

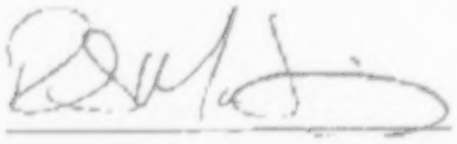
19. The State's duty to maintain, repair or replace culverts which block passage of anadromous fish does not arise from a broad environmental servitude against which the Ninth Circuit Court of Appeals cautioned. Instead, it is a narrow and specific treaty-based duty that attaches when the State elects to block rather than bridge a salmon-bearing stream with a roadbed. The roadbed crossing must be fitted with a culvert that allows not only water to flow, but which insures the free passage of salmon of all ages and life stages both upstream and down. That passage is best facilitated by a stream simulation culvert rather than the less-effective hydraulic design or no-slope culvert.

20. An injunction is necessary to ensure that the State will act expeditiously in correcting the barrier culverts which violate the Treaty promises. The reduced effort by the State over the past three years, resulting in a net increase in the number of barrier culverts in the Case Area, demonstrates that injunctive relief is required at this time to remedy Treaty violations.

CONCLUSION

The permanent injunction requested by the Tribes and joined by the United States is reasonable and sufficiently narrowly tailored to remedy specific harms. The Court shall accordingly GRANT the Tribes' motion for a Permanent Injunction (Dkt. # 660) and adopt the proposed Order presented by the Tribes.

Dated this 29th day of March 2013.



RICARDO S. MARTINEZ
UNITED STATES DISTRICT JUDGE

UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF WASHINGTON
AT SEATTLE

UNITED STATES OF AMERICA, et al., Plaintiffs, v. STATE OF WASHINGTON, et al., Defendants.	CASE NO. CV 9213 Subproceeding 01-01 SUPPLEMENT TO MEMORANDUM AND DECISION

The attached documents, Attachments A and B, were referred to in the Court's Memorandum and Decision filed March 29, 2013. Dkt. # 752. The Clerk shall file these documents and link or attach them to the Memorandum and Decision.

Dated this 1st day of April, 2013.

RICARDO S. MARTINEZ
UNITED STATES DISTRICT JUDGE

Attachment A

70-CV-09213-EXH

Chart attached to Finding of Fact 3.12

Tribal harvest of salmon and steelhead in western and Puget Sound Rivers)				
YEAR	CHINOOK	CHUM	PINK	COHO
1974	91,006	173,059	25	463,647
1975	126,854	79,427	105,164	442,662
1976	156,710	298,652	42	341,618
1977	147,927	182,524	180,136	468,003
1978	163,525	503,599	74	469,006
1979	141,292	103,769	760,071	541,711
1980	191,021	465,746	332	889,663
1981	179,168	285,629	1,177,398	547,963
1982	180,574	473,382	78	930,687
1983	168,619	279,545	820,343	637,242
1984	181,452	403,509	68	582,857
1985	197,212	554,309	2,177,039	848,482
1986	178,692	663,659	113	1,023,625
1987	215,103	720,804	1,117,032	1,283,953
1988	239,931	889,485	67	880,889
1989	272,212	521,221	1,850,177	737,879
1990	249,115	570,984	301	806,175
1991	161,514	562,781	1,712,768	597,096
1992	132,372	778,892	121	399,307
1993	108,261	544,616	1,118,774	251,772
1994	89,067	793,891	214	450,734
1995	97,655	381,117	1,344,707	368,125
1996	95,080	260,790	54	263,320
1997	83,019	189,636	1,008,435	157,898
1998	73,023	318,678	515	188,857
1999	120,097	119,160	51,934	192,417
2000	84,230	156,069	349	446,770

Washington (Ocean, Coastal Rivers, Puget Sound from 1974-2007.			
SOCKEYE	STEELEHEAD		TOTAL
58,984	4,885		791,572
133,657	0	*	887,764
110,492	12,066		919,580
396,125	14,386		1,389,101
256,253	17,734		1,410,191
429,004	15,089		1,990,936
284,757	20,696		1,852,215
569,880	22,729		2,782,767
1,407,535	24,771		3,017,027
219,993	25,437		2,151,179
851,099	1,744		2,020,729
1,574,557	25,996		5,377,595
1,357,347	93,618		3,317,054
997,568	80,968		4,415,428
519,377	82,275		2,612,024
1,126,586	47,363		4,555,438
1,193,441	47,121		2,867,137
849,898	32,220		3,916,277
300,665	58,405		1,699,762
1,397,235	31,180		3,451,838
960,166	30,013		2,324,085
243,350	31,072		2,466,026
287,262	30,467		936,973
680,717	21,369		2,141,074
311,621	39,578		932,272
20,694	24,674		528,976
320,390	26,226		1,034,034

YEAR	CHINOOK	CHUM	PINK	COHO
2001	147,550	752,144	319,279	501,374
2002	150,522	839,450	277	387,861
2003	130,664	786,594	551,798	312,432
2004	166,327	929,308	699	653,737
2005	141,595	348,376	240,525	432,485
2006	148,072	764,032	368	325,596
2007	150,941	802,513	315,311	278,945
	CHINOOK	CHUM	PINK	COHO
Total	5,160,402	16,497,316	14,854,588	18,104,788

SOCKEYE	STEELEHEAD		TOTAL
170,408	38,847		1,929,602
356,883	23,292		1,758,285
220,617	23,280		2,025,485
149,640	32,056		1,931,767
141,038	28,598		1,332,617
541,322	26,261		1,805,651
5,494	30,937		1,584,141
SOCKEYE	STEELEHEAD		TOTAL
18,444,055	1,065,454		74,126,602

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Chart attached to Finding of Fact 3.25

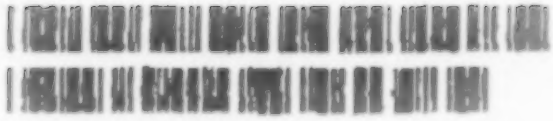
Presumed Tribal harvest of sockeye salmon in western Washington (Ocean, Coastal Rivers, Puget Sound and Puget Sound Rivers) from 1979-2005				
Year	Total Tribal Sockeye Harvest	Tribal Sockeye Harvest Presumed to be of Canadian Origin[1]	Tribal Sockeye Harvest Presumed to be of US Origin[2]	% of Tribal Sockeye Harvest Presumed to be of Canadian Origin
1979	429,004	392,106	36,898	91.40%
1980	284,757	191,487	93,270	67.25%
1981	569,880	537,713	32,167	94.36%
1982	1,407,535	1,369,176	38,359	97.27%
1983	219,993	186,434	33,559	84.75%
1984	851,099	789,625	61,474	92.78%
1985	1,574,557	1,539,197	35,360	97.75%
1986	1,357,347	1,348,343	9,004	99.34%
1987	997,568	959,925	37,643	96.23%
1988	519,377	371,951	147,426	71.61%
1989	1,126,586	1,118,007	8,579	99.24%
1990	1,193,441	1,175,911	17,530	98.53%
1991	849,898	838,033	11,865	98.60%
1992	300,665	289,401	11,264	96.25%
1993	1,397,235	1,361,993	35,242	97.48%
1994	960,166	955,767	4,399	99.54%
1995	243,350	241,907	1,443	99.41%
1996	287,262	222,992	64,270	77.63%
1997	680,717	675,487	5,230	99.23%
1998	311,621	305,909	5,712	98.17%
1999	20,694	20,215	479	97.69%

Year	Total Tribal Sockeye Harvest	Tribal Sockeye Harvest Presumed to be of Canadian Origin[1]	Tribal Sockeye Harvest Presumed to be of US Origin[2]	% of Tribal Sockeye Harvest Presumed to be of Canadian Origin
2000	320,390	258,788	61,602	80.77%
2001	170,408	162,680	7,728	95.47%
2002	356,883	299,261	57,622	83.85%
2003	220,617	177,751	42,866	80.57%
2004	149,640	111,733	37,907	74.67%
2005	141,038	137,688	3,350	97.62%

[1] Stocks in this category are predominantly Fraser River stocks that are of Canadian origin. This category is known to include a small amount of intermingled US origin (Baker River, Lake Washington, Misc.) stocks but their numbers are considered minor in comparison.

[2] Stocks in this category are predominantly Lake Washington. There are other minor US origin stocks that may not be accounted for in this table.

Attachment B



70-CV-09213-RPLY

Fish Passage Barrier
Inventory
July 2012
Washington State
Department of Transportation
Progress Performa
Report

Washington State Department of Fish and Wildlife

HABITAT PROGRAM
RESTORATION DIVISION

Progress Performance Report
For
WSDOT Fish Passage Inventory

July 2012

Washington State Department of Transportation

FISH PASSAGE BARRIER REMOVAL PROGRAM

This report is also available in a pdf format at http://www.wsdot.wa.gov/Environment/Biology/FP/fishpassage.htm .
Additional data can be obtained by contacting Fish and Wildlife Biologist, Eva Barber, e-mail: Eva.Barber@dfw.wa.gov, phone: (360) 902-2411

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INTRODUCTION

Background

The restoration of declining salmon and trout populations ranks high in the development of management plans for streams, lakes, and wetlands in Washington State. One of the many challenges facing salmon and trout populations is an inability to utilize their historic rearing and spawning grounds due to fish passage barriers that block access to habitat. To address this, the Washington State Department of Fish and Wildlife (WDFW) and the Washington State Department of Transportation (WSDOT) have developed a comprehensive program to eliminate fish passage barriers along state highways.

The amount of habitat that was once blocked by fish passage barriers was derived from habitat surveys or by using Geographic Information System (GIS) software for sites that were lacking habitat surveys.

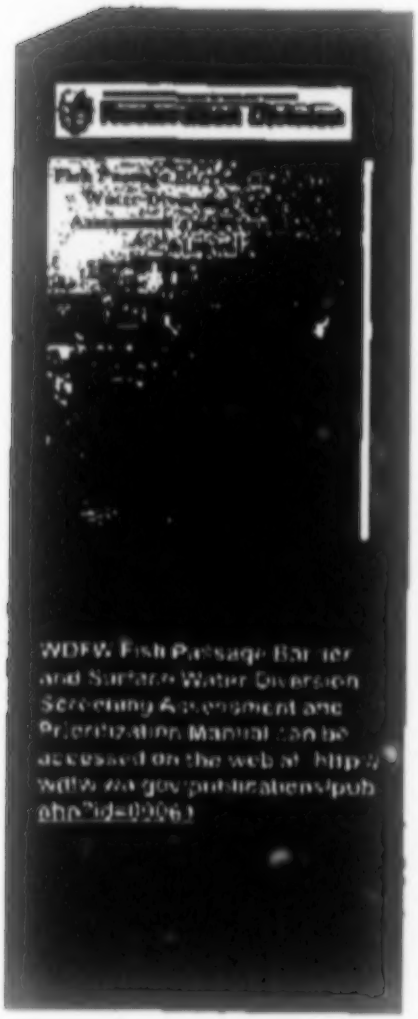
Prior to 1991, WSDOT addressed the correction of fish passage barriers during highway construction and maintenance projects as required by permit. In 1991, in cooperation with the Washington State Legislative Transportation Committee, WSDOT committed funding from its Highway Construction Program to inventory fish passage barriers to anadromous fish species at state highway crossings. WSDOT contracted with the WDFW to conduct the inventory and habitat studies necessary to prioritize barriers for correction. In conjunction with securing funding for fish passage inventory, WSDOT began obtaining funding to correct barriers through stand-alone projects.

This report summarizes WSDOT's fish passage barrier inventory efforts, correction plan, corrections conducted with dedicated fish passage barrier correction funds (I-4 funds) since 1991 and those performed during road projects. In addition, this report includes WSDOT fish passage projects completed in 2011, long-term scoping and planning for future barrier corrections and results of fish use monitoring of completed and planned fish passage barrier projects. The CD attached to the back cover of this report contains four appendices in Microsoft Excel format: fish passage barriers, fishways that need maintenance for fish passage, fish passage projects that are in the process of biological and engineering scoping, and the results of spawner surveys conducted upstream and downstream of fish passage projects completed in 2011.

FISH PASSAGE BARRIER INVENTORY

Inventory Development Over Time

The fish passage barrier inventory has changed in scope several times since its inception. Prior to 1994, the WSDOT culvert inventory was salmon-centric. Fish passage barrier and habitat assessments were conducted on streams with a gradient of up to seven percent, which marked the presumed upper limit of salmon habitat. Subsequent to 1994, fish passage barrier inventories were expanded to include higher gradient steelhead trout habitat. Following this change, all culvert evaluations and habitat surveys were done on streams with up to 12 percent gradient. In February 1998, WDFW increased the gradient criteria from 12 to 20 percent in order to include resident fish and to adhere to the current Forest Practices Rules. In 1998, WSDOT contracted with the WDFW to commence a more extensive inventory of barrier crossings using the current fish passage criteria (WDFW Fish Passage Barrier and Surface Water Diversion Screening Assessment and Prioritization Manual 1998, revised 2009). Under the new criteria, all fish bearing stream crossings were to be assessed.



In October 2007, the expanded inventory following the newest fish passage criteria was completed on the entire state route system of 11,355.82 kilometers (7,056.18 miles). The summary results of the inventory are shown in Table 1. Each year, the inventory numbers are updated, as a result of on-going reassessment efforts on selected fish passage structures.

Reassessment Efforts

WSDOT and WDFW recognized the need to periodically update the fish passage inventory to ensure that culverts that were previously determined to be passable have not become barriers. With the inventory completed in 2007, WDFW began reassessing passable culverts without significantly reducing the current effort to complete the habitat assessments necessary for prioritizing barriers for correction. WDFW generated a list of 358 culverts thought to have the highest likelihood of becoming barriers. The choice was based on the ratio of culvert width to average channel width measurements. Culverts that were chosen for the analysis either had no culvert width to streambed width ratio measurements, or had a ratio of less than 1. The reassessment of the culverts takes place when a crew is in the vicinity conducting habitat assessments.

Fish Passage Inventory Updates as of June 2012

WDFW inspected 6,527 crossings in natural drainages during the course of the inventory. The inspected crossings included culverts as well as other features associated with WSDOT highways and rights-of-way, such as road fills, streambed controls, and dams.

- Of the 6,527 crossings over natural drainages, 3,204 were identified as crossings in fish bearing streams.
- Approximately 62% (1,988) of the examined fish bearing crossings were identified as barriers (Table 1). Out of the 1,988* barriers, 941 are total barriers to fish passage and 1,047 provide partial fish passage.
- Sixty crossings require further analysis to determine fish passage barrier status.

*The number of fish passage barriers is a dynamic value that changes as the on-going inventory takes place. Access conditions at the time of the initial inventory may delay the assessment of all features in a given area. As previously missed culverts are identified, the number of crossings that pass, or fish passage barriers, may increase.

Table 1. Fish Passage Barriers - *June 2012*

Based on the WSDOT Expanded Fish Passage Inventory as of June 2012

Fish Stream Crossings	Fish Passage Barriers		Unknown Barrier Status	Barriers with Limited Habitat Gain[1]	Barriers with Habitat Threshold Gain Not Verified	Barriers Fixed[2]
	Total Barriers (0% Passable)	Partial Barriers (33% or 67% Passable)				
3,204	941	1,047	60	417	52	258

[1] Barriers that do not meet current WDFW threshold habitat gain criteria to justify correction, using dedicated funding until higher priority barriers are corrected.

[2] Two hundred and fifty-eight WSDOT fish passage barriers have been reported as replaced or retrofitted for fish passage, however, 61 of these require additional work to meet current fish passage criteria (See Tables 5 and 7).

- Barriers with a significant habitat gain** (1,519) will be prioritized for correction with dedicated funding.
- Fifty-two fish passage barrier crossings are scheduled for verification of significant habitat gain.

**A significant reach of habitat is defined as a section of stream having at least 200 linear meters of habitat without a natural barrier.

Regional Statistics

WSDOT has six geographic management regions: Northwest, North Central, Olympic, Southwest, South Central, and Eastern (See Figure 1). A summary of all the fish passage barriers within the six regions are shown in Table 2. For a complete list of fish passage barriers refer to Appendix I on the CD.

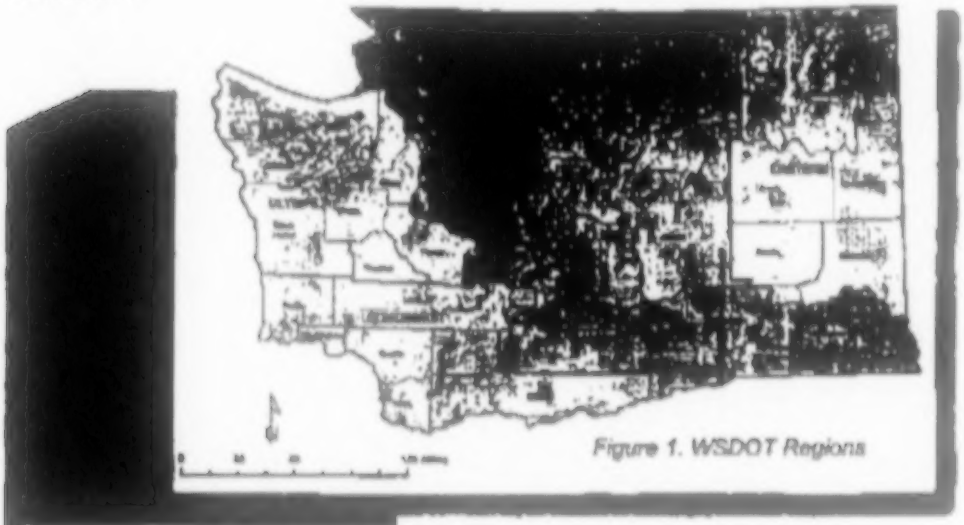


Figure 1. WSDOT Regions

Table 2. Fish Passage Barrier Assessment Summarized Across Six WSDOT Management Regions - *June 2012*

WSDOT Region	Fish-bearing Crossings	Fish Passage Barriers		Barriers with Limited Habitat Gain[1]	Barriers with Habitat Threshold Gain Not Determined	Crossings Repaired[2]
Northwest	955	610		153	10	120
North Central	199	134		32	6	15
Olympic	927	626		130	13	74
Southwest	678	370		79	16	28
South Central	144	66		5	5	7
Eastern	301	182		18	2	14
Total	3,204	1,988		417	52	258

[1] Barriers that do not meet WDFW current 200m threshold habitat gain criteria to justify correction using dedicated funding until higher priority barriers are corrected.

[2] Two hundred and fifty-eight WSDOT fish passage barriers have been replaced or retrofitted, however, 61 of those require additional work to meet current fish passage criteria (See Tables 5 and 7).

Fishways

In addition to culverts, WSDOT owns 160 fishways statewide. Regular inspections and maintenance are essential in the continued successful operation of fishways. Some of the fishways require frequent maintenance for fish passage but are not fish passage barriers. WDFW biologists perform inspections for each regularly inspected fishway in the spring, document maintenance needs and fish passage deficiencies and notify WSDOT. A follow-up inspection, conducted in the fall ensures that all the fish passage deficiencies were corrected and maintenance needs were met. Maintenance of the fishways includes removal of organic debris and sediments, repairing broken or missing baffles and other similar activities ensuring fish passage through fishways. For most fishways, maintenance alone can not provide unimpeded fish passage indefinitely. Eventually, baffles, log and concrete controls deteriorate, or the structures associated with fishways need to be replaced. When the fishways were originally designed, it was recognized that they were intended to provide relatively short-term, inexpensive interim fish passage solution. In many situations where culvert replacement with a larger culvert or a bridge would have been very difficult or prohibitively expensive, fishways provided uninterrupted fish passage for many years. When the fishways reach the end of their lifespan and can no longer provide fish passage, they are put on the barrier list to be evaluated by biologists and engineers for a repair solution. Like the other fish passage barriers, barrier fishways are included in the scoping and prioritization process that will ultimately lead to their repair or replacement.

A complete list of all the WSDOT-owned barrier fishways and culverts or fishways that need maintenance for fish passage can be found on Appendix 1

Figure 2. An example of a failed fishway at Deep Creek on SR 18 that has been placed on the barrier list and is no longer inspected. The fishway consists of badly deteriorated concrete baffles and a sealcrete control downstream that no longer backwaters the culvert, hindering fish passage for coho salmon, and steelhead, and resident and searun cutthroat trout.

Figure 3. An example of an efficient fishway at a tributary to Nisqually River on SR 706 that provides passage for resident cutthroat trout. The fishway, built in 2005, consists of a round steel culvert equipped with six log controls downstream. This fishway is inspected annually to ensure continuous and unimpeded fish passage.

FISH PASSAGE PROJECT DEVELOPMENT

Project Prioritization

All the fish passage barriers that were identified during the inventory are prioritized for repair. The prioritization process aims to select the projects with the greatest production benefits for anadromous and resident fish species. Only barriers with significant amount of potential habitat gain are prioritized for correction as stand-alone fish passage restoration projects in the Environmental Retrofit Program (I-4) budget. Project priority is determined by many factors that are consolidated into a numeric Priority Index (PI) model. The PI values are contained within the WDFW Fish Passage and Diversion Screening Inventory (FPDSI) Database and provide a standardized, objective, relative priority ranking for each project. Among the factors determining a project's priority are:

- Amount and quality of habitat gained.
- Degree of passability improvement.
- Species-specific production potential of the gained potential habitat.
- Mobility of the species present.
- Stock status of species present or potentially present (WDFW Salmonid Stock Inventory, SaSI).
- Cost of the project.

*A significant reach of habitat is defined as a section of stream having at least 200 linear meters of habitat without a natural barrier.

The habitat assessment is conducted per the WDFW Fish Passage Barrier and Surface Water Diversion Screening Assessment and Prioritization Manual, December 2009 (located on the Internet at: http://hdfw.wa.gov/publications/pub.php?id=00061).

A complete list of all the fish passage barriers with a completed habitat assessment is included in Appendix 4.

Habitat Assessment

Three methods of habitat assessment are used: Full Physical Survey (FS), Reduced Sampling Full Physical Survey (RSFS), and Threshold Determination (TD). The Full Physical Survey qualifies and quantifies habitat based on the measurements taken during the survey of the entire stream, while the TD verifies the existence of a significant reach* of habitat without a gradient or a natural barrier either downstream or upstream of a fish passage barrier crossing.

To expedite the prioritization process, all habitat assessments since 2005 have been performed using a RSFS, which differs from the FS by the number of samples collected per stream reach. Only one sample per reach is taken during a RSFS regardless of the reach length, provided that the habitat characteristics remain unchanged throughout the reach.

WDFW prioritizes habitat assessments according to the highest potential habitat gain. Between June 2011 and June 2012, 40 physical surveys on selected streams were completed, during which 62.9 kilometers (39 miles) of habitat downstream and 54.3 kilometers (33.8 miles) of habitat upstream were surveyed. Based on the current (as of June 2012) state-wide barrier count and assuming one field crew, it is estimated that the assessment of blocked potential habitat will be completed in the 2027-2029 biennium.

Fish Passage Project Scoping Process

Following prioritization, each of the fish passage barriers with a PI above the current threshold, undergoes a multi-phased pre-scoping process. The first step in this process is biological scoping by a WDFW biologist, which involves verification of the inventory and habitat assessment data. A crucial element of the biological scoping is verifying that the habitat conditions and species expected to benefit are correctly reflected in the PI value for each barrier. In addition to the PI, the biologist considers other factors for project selection, such as the number and location of additional barriers in the watershed, project feasibility, likelihood for success, other restoration efforts in the watershed, and project costs. All the information gathered during the biological scoping process is summarized in a biological scoping report accompanied by a map that illustrates the location of additional human-made barriers downstream and upstream of the WSDOT barrier. If the PI value drops below the current scoping threshold as a result of changes made by the biologist during a scoping process, the project is deferred until higher priority projects are completed. Projects that require correction of other fish passage barriers or that require correction of habitat deficiencies in the watershed prior to development of a correction strategy may be postponed until those issues are resolved.

Once biological scoping is complete, projects that successfully meet the verification process have a WDFW scoping engineer assigned to develop conceptual designs for barrier correction. The development of conceptual design has several stages. The first stage consists of a site survey, where field data is collected for the crossing structure. During the second stage, the field data is incorporated into AutoCAD where the project site is defined by preparation of 3D surfaces, contours, and annotations. The final product of the second stage is a finished set of plans consisting of the necessary calculations to prepare the design. The plans are then reviewed and edited by the project engineer. The project engineer summarizes all the calculation, observations and plans into a Draft Engineering Scoping Report and submits it to a peer review team consisting of a peer review engineer and the scoping biologist. All the comments and suggestions made by the peer review team are incorporated into the Final Engineering Scoping Report. The report describes the existing conditions and proposes several design options. When the WDFW scoping engineer has identified all reasonable conceptual design options, a pre-scoping meeting is held. WDFW participants in this meeting are, at a minimum, the scoping biologist, scoping engineer and area habitat biologist (AHB). WSDOT participants include the regional scoping engineer and representatives of the Environmental Services Office, Regional Program Management, Regional Environmental Office, and Regional Project Development Office. The outcome of this meeting is a consensus decision, on which conceptual design option will be pursued. A stakeholder concurrence form is generated that documents the outcome of the meeting and includes the cost estimate for the selected design option. Once each participant present at the meeting reviews and concurs with the information on the concurrence form, pre-project scoping is complete and the project is eligible to be placed on the Ten Year Plan (Table 3). Figure 4 outlines the complete scoping, project design, and barrier removal process through the I-4 program.

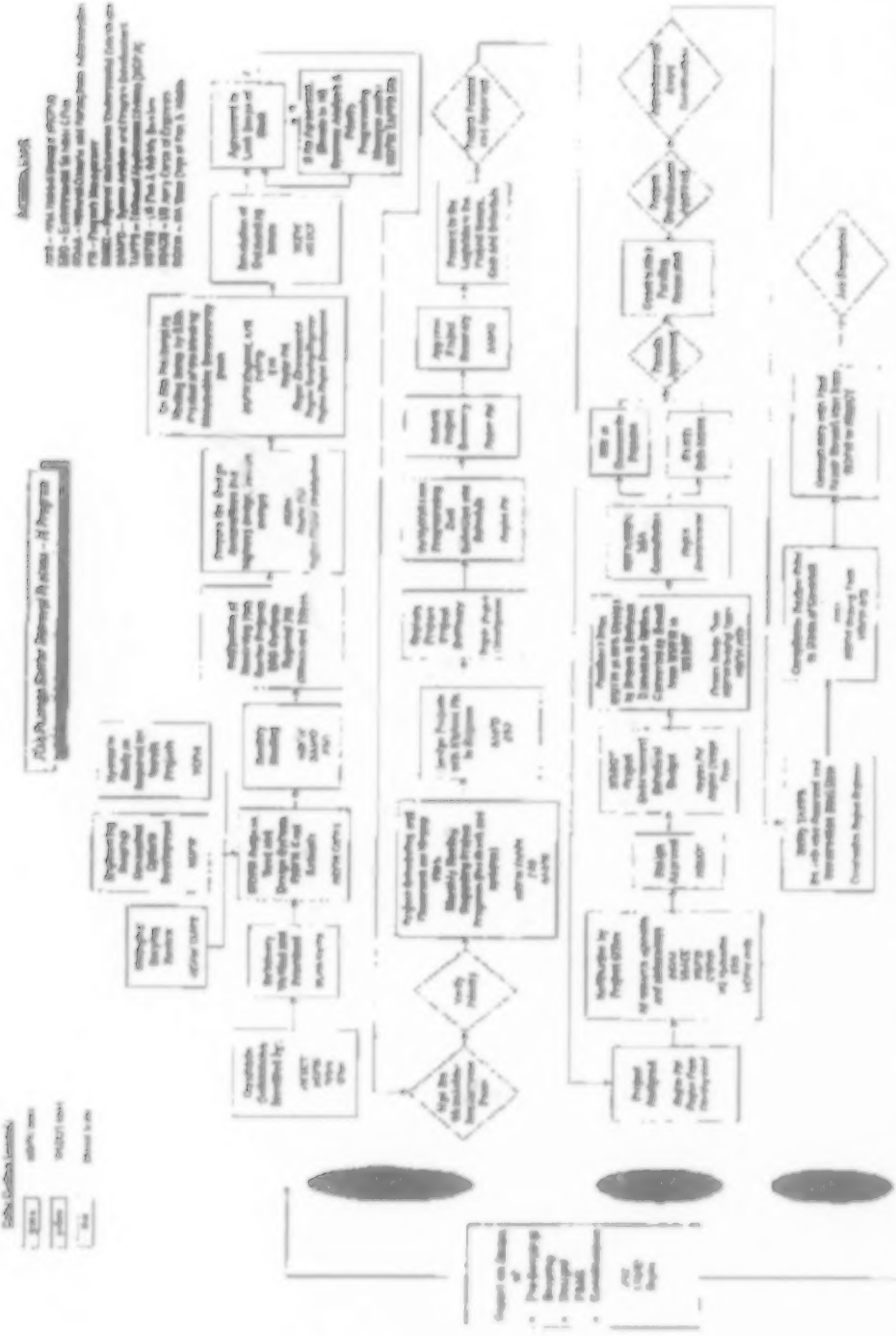


Figure 4. A Complete Fish Passage Barrier Scoping and Removal Process with I-4 Program

FISH PASSAGE BARRIER CORRECTION PLAN

Fish passage problems in Washington are shared among federal, state, tribal, county, city, and private barrier owners. The 1,988 WSDOT-owned fish barriers identified during the WSDOT Fish Passage Inventory are estimated to block more than 6,192* linear kilometers (3,848 miles) of potential salmonid habitat. Only a small fraction of WSDOT barriers, however, are the only fish passage barriers in a given watershed. On average, there are two other (non-WSDOT) barriers downstream and five upstream of a WSDOT barrier**. Other, non-WSDOT barriers within the blocked potential habitat also need to be corrected to fully realize the potential habitat gain.

WSDOT Fish Passage Barrier Correction Strategy

WSDOT manages fish passage barrier correction in three ways:

- First, each biennium, the Legislature appropriates funds for stand-alone correction projects to address some of the highest priority barriers. These "dedicated correction" projects are part of the WSDOT Environmental Retrofit Program. The highest priority barriers selected through a multi-phased process of prioritization, scoping, and project design are listed in the Ten Year Plan.

- Second, when WSDOT plans a highway safety or mobility project, it reviews the project area for barrier correction opportunities. Barrier culverts that require a Hydraulic Project Approval (HPA) are corrected as part of the highway construction project. If no HPA is required, WSDOT determines whether barriers within the project boundary can be corrected more efficiently as part of the highway project.

- And third, some fish passage barriers are corrected during routine maintenance on failing culverts, Chronic Environmental Deficiency (CED) projects, and Major Drainage projects. Generally, however, corrections completed through maintenance are small-scale repair projects and do not typically include a full culvert replacement.

WSDOT Transportation Improvement Projects (Barriers Fixed as Part of Highway Safety and Mobility Projects)

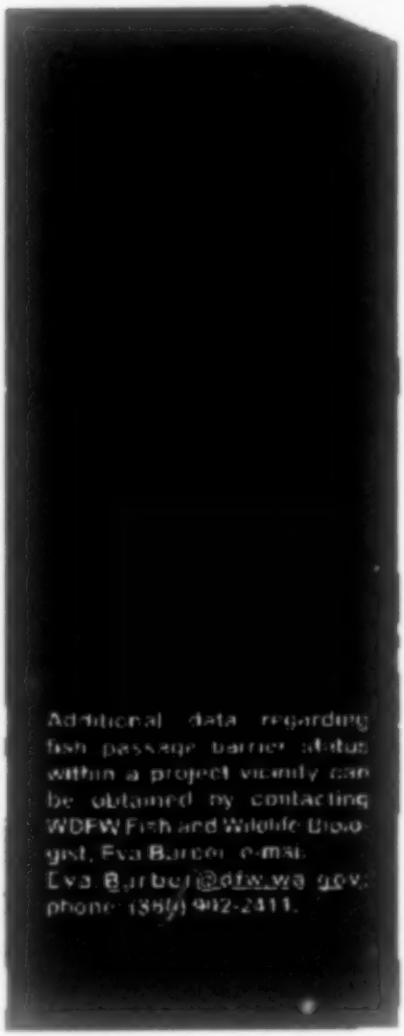
The second way that WSDOT corrects fish passage barriers is the integration of fish passage repairs with road project construction. It is a cost-effective way to accelerate barrier correction and reduce mobilization costs. WDFW and WSDOT integrate fish passage barrier correction into planned WSDOT transportation improvement projects whenever possible. All fish passage barriers within the upcoming transportation project area should be considered for correction, including barriers with limited habitat gain that are not considered for correction with dedicated funding.

WDFW reviews the records of all fish passage barriers within the boundaries of proposed transportation projects to ensure that all fish passage crossings within a given project area have been identified. WDFW works closely with WSDOT to identify all fish passage barriers within a project boundaries and schedules an additional field review if needed.

Fish Passage Barrier Correction Tied to Road and Culvert Maintenance

Culverts that require frequent and chronic maintenance for fish passage or highway safety may be fixed as a part of the Chronic Environmental Deficiency (CED) or Major Drainage programs. The CED Program was established by WSDOT in 2001 to mitigate for the impacts of repetitive maintenance on the aquatic environment. Potential CED projects can be nominated by WSDOT, WDFW, Tribes, or other entities. For more information on CED Program and projects visit the WSDOT web site at the following location: http://www.wsdot.wa.gov/Environment/Biology/FP/.

The Major Drainage Rehabilitation Program addresses major drainage features that need repair or replacement to reduce the risk of roadway closures and other impacts to motorists. This preventative maintenance enhances the function of existing drainage structures protecting the highway and improves fish passage in fish bearing drainages.



Additional data regarding fish passage barrier status within a project vicinity can be obtained by contacting WDFW Fish and Wildlife Biologist, Eva Barber e-mail: Eva.Barber@dfw.wa.gov; phone: (360) 902-2411.

TEN YEAR PLAN SUMMARY

Ten Year Planning Document

In coordination with WSDOT, each year, WDFW prepares a prioritized list of fish passage projects to be evaluated and constructed over the next five biennia as part of the WSDOT Environmental Retrofit Program. This list serves as a resource for project planning and coordination with the recognition that the actual level of project design and construction is dependent on funding. The Ten Year Plan is the result of a multi-phased process of project prioritization, scoping, development of conceptual designs, and budgeting that is carried out by WDFW biologists, environmental engineers and WSDOT headquarters and regional staff. The Ten Year Plan is regularly updated as new projects are identified, prioritized, scoped, and refined. The 2012 Ten Year Plan is outlined in Table 3.

Table 2. 2012 Ten Year Plan

Site ID	Road	Mile Post	Stream	WRIA	RT	Funding Status	Project Status	Biennium
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	SR 530	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	SR 9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	SR 20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	SR 11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	SR 202	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	SR 532	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	SR 542	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	I-5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	SR 96	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	43	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	SR 16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	SR 202	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	SR 5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	SR 900	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Site ID	Road	Mile Post	Stream	WRIA	RT	Funding Status	Project Status	Biennium
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Table 3. 2012 Ten Year Plan cont.

WSDOT Olympic Region								
Site ID	Road	Mile Post	Stream	WRIA	PI	Funding Status	Project Status	Biennium
986246	SR 106	13.5	Twanoh Falls Cr	14.0132		Funded	Design & Const	2008-11, 2011-13, 2013-15
991730	SR 112	25.6	Pysht R trib	19	20.31	Funded	Design & Const	2008-11, 2011-13
990304	SR 112	47.1	Nelson Cr	19.0032	20.42	Funded	Design & Const	2008-11, 2011-13
980017	SR 18	28.1	Anderson Cr	15.0213	30.6	Funded	Design & Const	2011-13, 2013-15
990763	SR 16	16.1	Anderson Cr	15.0211	32.53	Funded	Design & Const	2011-13, 2013-15
990062	SR 112	57.61	Cowlitz Cr	19.0001	27.83	Funded	Design & Const	2011-13, 2013-15
990797	SR 7	48.17	Mack Cr	11.0018	24.61	Funded	Design & Const	2011-13, 2013-15
991049	SR 507	26.35	Lacamas Cr	28.0022	37.67	Funded	Design & Const	2011-13, 2013-15
15.0229 0.10	SR 3	40.96	Chico Cr	15.0229	48	Funded	Design & Const	2011-13, 2013-15
990123	SR 507	0.40	Dogfish Cr	15.0285	27.97	Funded	Design & Const	2011-13, 2013-15
990155	SR 8	6.5	EF Wildcat Cr	22.0505A	52.71	Funded	Design & Const	2013-15, 2015-17
100 9882 1121a	SR 162	11.04	Carp Cr	10	23.5	Not Funded	Future	2015-17
991572	SR 507	1.69	Dogfish Cr trib	15.0286	22.28	Not Funded	Future	2015-17
991989	SR 507	1.34	Dogfish Cr trib	15.0286	19.04	Not Funded	Future	2015-17
994325	SR 205	2.44	Mounts Cove trib	15.0321	29.66	Not Funded	Future	2015-17
990139	SR 109	28.1	Elk Cr	21.0761	16.5	Not Funded	Future	2015-17
980178	US 101	160.85	Hatton Cr	21.0134	25.09	Not Funded	Future	2015-17
980273	SR 8	8.1	Mox Chehalis Cr trib	22	20.83	Not Funded	Future	2017-19
982510	US 101	71.02	Joe Cr	24.0129	19.98	Not Funded	Future	2017-19
980076	US 101	271.96	Chicken Coop Cr	17.0270	30.9	Not Funded	Future	2017-19
991958	SR 206	7.28	Eightmile Cr	15.0295	29.48	Not Funded	Future	2017-19
994484	US 101	303.01	Murphy Cr	17.0001	30.05	Not Funded	Future	2017-19
980214	SR 112	35.21	Joe Cr	19.0109	18.37	Not Funded	Future	2017-19
994781	US 12	9.04	Wynoochee R trib	22	18.53	Not Funded	Future	2017-19
991730	SR 112	7.35	Otter Cr	19.0027	18.2	Not Funded	Future	2017-19
980679	US 101	80.73	Hoquiam R trib	22	17.35	Not Funded	Future	2019-21
991732	SR 112	29.12	Indian Cr	19.0112	15.88	Not Funded	Future	2019-21
991061	SR 112	53.5	Falls Cr	19.0912	14.7	Not Funded	Future	2019-21
980164	SR 112	68.69	Field Cr		14.61	Not Funded	Future	2019-21
991272	SR 109	33.1	Wayne Cr	21.0720	14.45	Not Funded	Future	2019-21
980731	US 101	111.36	Stevens Cr trib	22.0044A	14.44	Not Funded	Future	2021-23
980987	SR 126	4.04	Blooms Ditch	11.0022	13.8	Not Funded	Future	2021-23
980654	US 101	298.37	Wilson Cr	20.0336	13.7	Not Funded	Future	2021-23

Table 3. 2012 Ten Year Plan cont.

Site ID	Road	Mile Post	Stream	WRIA	PI	Funding Status	Project Status	Timeline
991258	SR 112	39.71	Butler Cr trib	19	43.68	Not Funded	Future	2021-23
990841	SR 112	39.7	Butler Cr	19	31.84	Not Funded	Future	2021-23
991006	US 101	161.10	Siebert Cr	18.0386	13.4	Not Funded	Future	2021-23
990788	SR 3	36.03	Chimacum Cr	15.0364	13.37	Not Funded	Future	2021-23
WSDOT Southwest Region								
990352	US 97	71.35	Highland Campground Cr	30.0540	7.46	Funded	Design & Const	2008-11, 2011-13
990818	SR 4	54.08	Trib to Eberhardt St	25.0080	25.10	Funded	Design & Const	2011-13, 2013-15
991696	SR 4	53.90	Trib to Eberhardt St	25.0080		Funded	Design & Const	2011-13, 2013-15
992282	US 12	124.97	Rowan Cr	36.1106	26.26	Not Funded	Future	2013-15
990190	US 12	95.75	Hogback Cr	36.0980	30.57	Not Funded	Future	2013-15
990886	SR 8	5.27	Wishkah R trib	24.0334	23.78	Not Funded	Future	2015-17
990283	US 101	93.05	Burbe Cr	20.0060	95.06	Not Funded	Future	2015-17
991658	SR 503	13.84	Rock Cr	27.0222	27.95	Not Funded	Future	2019-19
990153	I-5	58.08	Lacamas Cr	28.0475	20.95	Not Funded	Future	2017-19
990361	SR 14	160.80	Rowe Cr	29.0034	24.29	Not Funded	Future	2019-21
991667	SR 503	15.21	Rock Cr trib	27.0223	15.06	Not Funded	Future	2019-21
WSDOT Northwest Region								
990073	SR 203	0.36	Chaplain Cr	27.0373	16.9	Not Funded	Future	2021-23
991398	US 101	2.58	Columbia R trib	24.0041	27.99	Not Funded	Future	2021-23
991958	US 101	2.00	Matheus Canyon Cr	24.0042	45.33	Not Funded	Future	2021-23
WSDOT South Central Region								
990810	SR 129	5.76	Rattlesnake Cr	35.2316	12.46	Not Funded	Future	2015-17
990278	I-90	70.0	Silver Cr	38.1713	63.29	Not Funded	Future	2017-19
WSDOT Eastern Region								
990106	US 395	247.71	Deadman Cr	60.0308	31.68	Not Funded	Future	2019-21

Plan Notes-

1) This plan is intended to show interested parties where WSDOT is targeting its resources for high priority current and future fish passage projects.

2) The potential projects shown in the plan have all been pre-scoped with WDFW for a potential solution.

3) Only projects in the 2011-13 biennium have funding from the Washington State Legislature. The timing of the remaining projects is subject to obtaining funds from the Washington State Legislature.

4) This plan includes projects funded by other funding sources within WSDOT. These include US 97 Highland Canyon and SR 106 Twanoh Falls creeks.

COMPLETED FISH PASSAGE PROJECTS

WSDOT Fish Passage Barriers Corrected with I-4 (Stand-Alone) Dedicated Funding

Eighty-six fish passage projects at high priority sites have gone through the complete scoping, design, and construction process since 1991. All of these projects have been completed using dedicated funding for stand-alone barrier corrections. Five fish passage barriers were corrected in 2011with dedicated funding:

- An undersized, barrier culvert on SR 548 (Figures 5 and 6) was replaced with a stream simulation culvert. This is the second WSDOT fish passage project on Terrell Creek in the past five years. The first fish passage project, located on SR 548 at milepost 0.35 was completed during a major drainage project in 2007. The current project is located further upstream, at milepost 4.67. The two projects collectively opened up access to over 18 kilometers (11.2 miles) of potential fish habitat.
- An old dam located below a bridge on US 2 was removed and a channel reconstructed where the dam used to be. Coho salmon were observed spawning in the new channel within a few months of project's completion (Figures 7 and 8).

Table 4. Fish Passage Projects Completed in 2011 with Dedicated I-4 Funding

Site Id	WSDOT Region	Road	MP	Stream	WRIA	PI	Potential Lineal Gain (km)
980429	NW	SR 548	4.67	Terrell Cr Culvert Replacement	01.0059	25.44	11.3
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
980332	OLY	US 101	102.14	Tributary to S Branch Big Cr Culvert Replacement	22.0059	25.82	7.9
[illegible]	OLY	US 101	[illegible]	[illegible]	22.0059	[illegible]	1.2
982493	OLY	US 101	68.59	Tributary to Lower Salmon Cr Culvert Replacement	24.0108	14.45	4.4

For a complete list of projects completed with the dedicated funding through the Environmental Retrofit Program see Table 5

- Three fish passage projects on US 101 collectively opened up 13.6 kilometers (8.5 miles) of potential fish habitat for many fish species (Figures 9 through 14).

Terrell Creek, tributary to Birch Bay

Fish Passage Barrier Corrected with Dedicated Funding

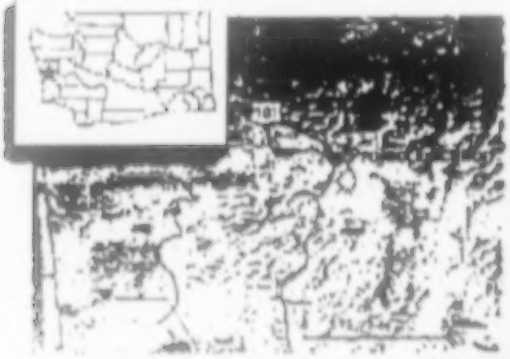
Figure 5. The old culvert was a round concrete pipe, 1.83 meters (6-foot) diameter. The culvert was assessed as a fish passage barrier due to a 0.60 meters (1.64-foot) water surface drop and a 2.5% slope.

Figure 6. In the summer of 2011, WSDOT replaced the barrier culvert with a 7.62 meters (25-foot) concrete box culvert with natural streambed material. This fish passage project restored access to 11.3 kilometers (7 miles) of potential habitat for coho salmon, and steelhead and searun and resident cutthroat trout.

Figures 7 and 8. The rock, concrete, and wood remnants of an old abandoned dam (left) that was historically used as an outlet control structure for a millpond posed a fish passage hindrance to salmonids. In 2011, fish passage through this reach of the stream was restored by removal of the remnants of the dam structure. A new channel was constructed (right) to alleviate a slight constriction in the stream with reshaped and re-vegetated banks. As a result of this fish passage project, access to 15.1 kilometers (9.4 miles) of potential habitat was restored to coho, pink and chum salmon, and steelhead, searun, and resident cutthroat trout.

An unnamed tributary to South Branch Big Creek

Fish Passage Barrier Corrected with Dedicated Funding



Before Construction

Figure 9. The old culvert was a squash corrugated steel pipe, 1.77 meters (5.8-foot) wide. The culvert was assessed as a velocity barrier.

After Construction

Figure 10. The newly constructed culvert is a precast concrete box structure, 6.46 meters (21-foot) wide with natural streambed material placed inside the culvert to simulate natural stream conditions. This fish passage project restored access to 7.9 kilometers (4.9 miles) of potential habitat for chum, Chinook, and coho salmon, and steelhead, searun and resident cutthroat trout.

An Unnamed tributary to South Branch Big Creek

Fish Passage Barrier Corrected with Dedicated Funding

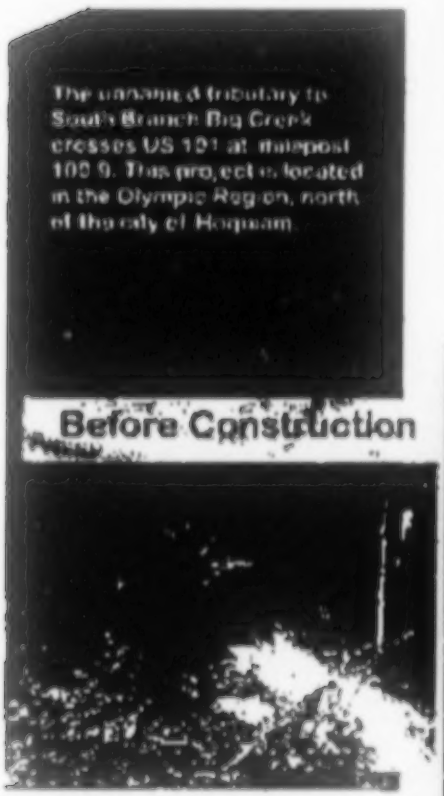


Figure 11. The old culvert was a round concrete pipe, 0.60 meters (2-foot) wide. The culvert was assessed as a barrier due to a 3% slope.

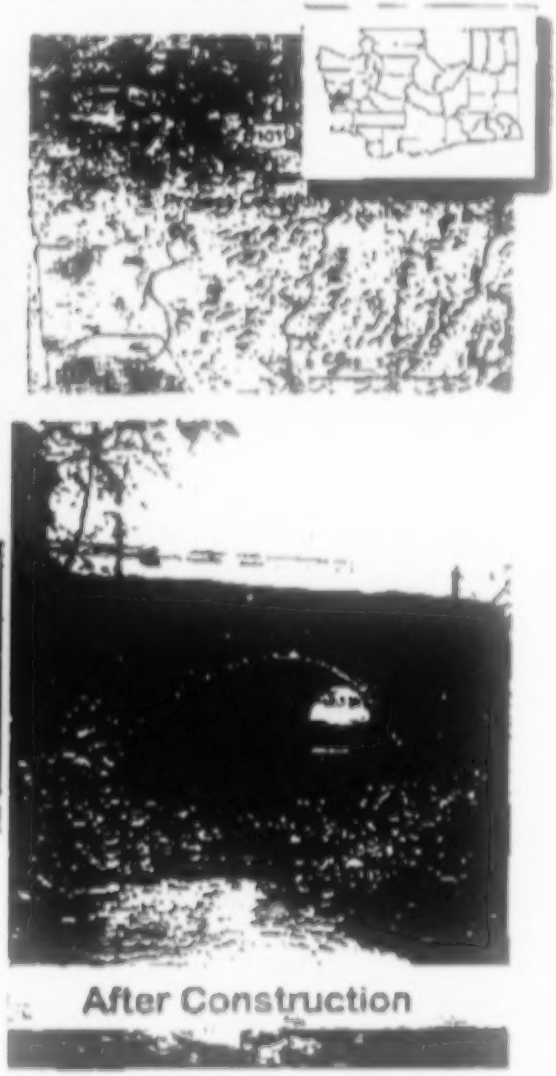


Figure 12. The new crossing is a round corrugated aluminum pipe, 3.05 meters (10-foot) wide with a streambed material placed inside the culvert to simulate natural stream conditions. This fish passage project restored 1.2 kilometers (0.75 miles) of perennial habitat for chum, Chinook, and coho salmon, and steelhead, searun and resident cutthroat trout.

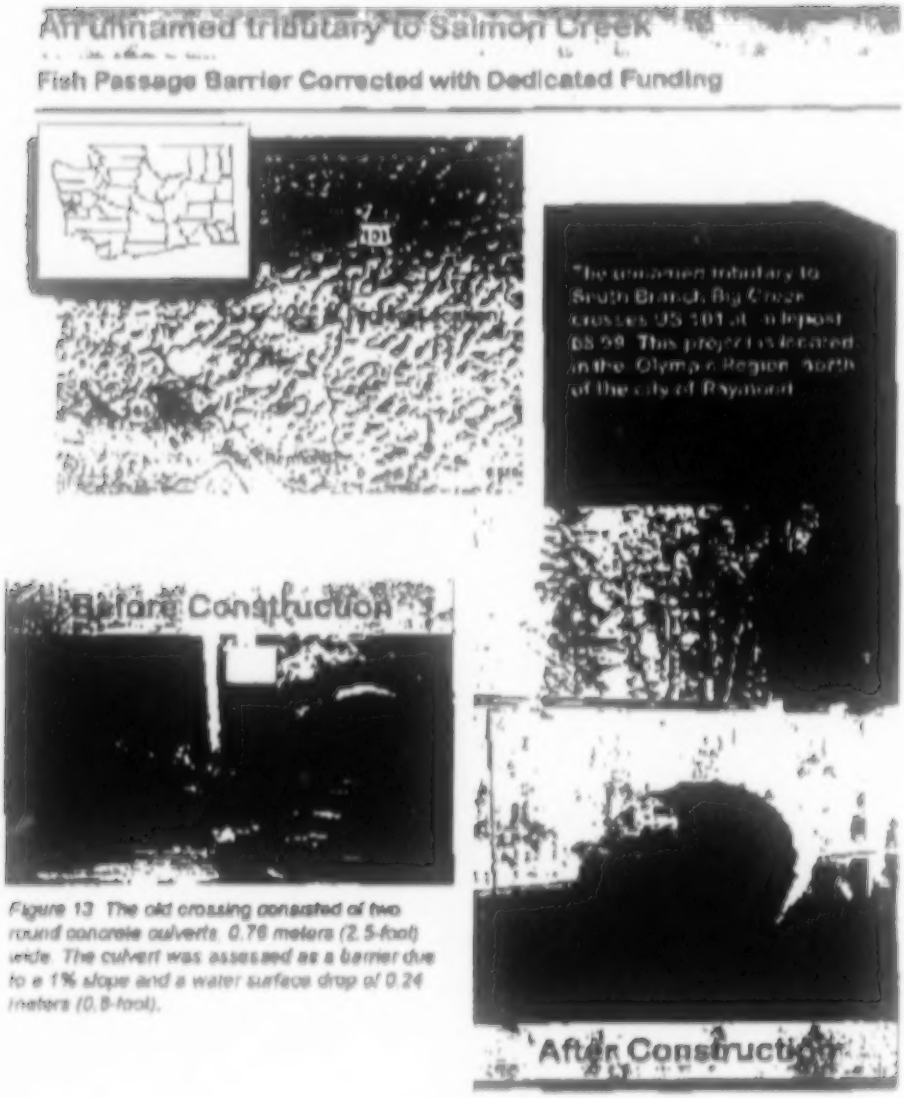


Figure 13. The old crossing consisted of two round concrete culverts, 0.76 meters (2.5-foot) wide. The culvert was assessed as a barrier due to a 1% slope and a water surface drop of 0.24 meters (0.8-foot).

Figure 14. The new crossing is a corrugated aluminum arch structure, 5.5 meters (18-foot) wide with natural streambed material placed throughout the culvert. This fish passage project restored access to 4.6 kilometers (2.9 miles) of potential habitat for coho salmon, and steelhead, searun and resident cutthroat trout.

Table 5. Fish Passage Projects Completed with Dedicated 1-4 Funds

Region 1 - NORTHWEST

Site Id	Road	MP	Stream	WRIA	Year	PI	Potential Linear Gain (km)	Project Cost $
990142*	SR 202	11.96	Evans Cr Fishway	08.0106	1992		4.5	319,044
03.0183 6.50*	I-5	219.4	Fisher Cr Fishway	03.0183	1992	35.07	27.7	19,999
01.0626 0.35	SR 11	18.6	Chuckanut Cr Fishway	01.0626	1993	39.28	2.7	65,788
991712	US 2	18	Unnamed tributary to Skykomish R Culvert Replacement	07.0864	1993	19.22	1.7	60,000
990014	SR 542	3.5	Squalicum Cr Fishway	01.0552	1994	38.09	4.7	68,000
105R042117a*	SR 164	8.5	Pussywillow Cr Culvert Replacement	10.0048	1996	29.74	15	117,566
05.0021 4.10	I-5	216.7	WF Church Cr Fishway	05.0021	1998	34.61	1.6	17,101
990433*	SR 900	19.5	Tibbets Cr Fishway	08.0169	1999	25.16	0.7	147,000
991168*	SR 530	25.94	Schoolyard Cr Fishway	05.0185	1999	24.32	1.3	360,289
990622	I-5	211.5	Unnamed tributary to Pilchuck Cr Fishway	05.0065	2000	42.03	8.2	45,107
991210*	SR 99	6.86	WF Hylebos Cr Fishway	10.0014	2002	37.46	3.4	105,965
991741	SR 534	1.2	Unnamed tributary to Bulson Cr Fishway	03.0199	2002	28.02	7.9	790,555
05.0268 0.80	I-405	10.12	Coal Cr	08.0268	2002	34.58	8.2	155,710
990291	SR 530	44	Moose Cr Culvert Replacement	05.0257	2002	23.88	6.7	140,000
990317	SR 530	44.27	Flat Cr Culvert Replacement	05.0257A	2002	23.98	6.7	140,000
994411	I-90	15.48	Tibbets Cr Bridge	08.0169	2004	25.93	9.4	5,536,555
991821	SR 92	0.47	Stevens Cr Culvert Replacement	07.0147	2005	22	2.1	634,398
991123*	SR 9	48	Cribble Cr Retrofit	03.0227	2005	33.92	4.3	322,176
993090	I-5	182.7	Swamp Cr Fishway	08.0059	2007	58.42	10.8	433,648
08.0059 7.00	I-405	29.75	Swamp Cr Fishway	08.0059	2007	61.62	0.6	436,324
07.0148 1.30	SR 92	1.93	Catherine Cr Fishway	07.0148	2007	24.76	7.3	377,569
990023	SR 542	28.74	Baptist Camp Cr Culvert Replacement	01.0433	2009	8.36	0.5	495,105
991751	SR 531	3.8	Cougar Cr Culvert Replacement	05.0041	2009	10.97	0.8	1,223,075
990606	SR 542	36.98	Chain-up Cr Bridge	01	2010	14.63	0.5	1,225,471
990429	SR 548	4.67	Terrell Cr Culvert Replacement	01.0889	2011	36.64	11.3	1,707,816
07.0939 0.40	US 2	68.99	Wagley's Creek dam removal	07.0999	2011	50.82	15.1	771,000
				Region 1 Total Estimated Linear Habitat Gain (km):			163.09	
				Region 1 Total Estimated Expenditure:				15,718,433

*Fish passage project, which is currently a partial or a total barrier to fish passage. For more information refer to Appendix IA.

Table 5. (cont.)

Region II - North Central

SiteID	Road	MP	Stream	WRIA	Year	PI	Potential Lineal Gain (km)	Cost $
990160	SR 971	8.9	Fire Cr Bridge	47.0056	1999		0.01	287,000
990165	SR 971	9.1	Fire Cr Bridge	47.0056	1999		1?	287,000
990108	SR 153	29.28	Beaver Cr Culvert Replacement	48.0307	2000	37.85	0.9	765,661
990382	US 2	87.67	Skinney Cr Culvert Replacement	45.0701	2001	14.01	0.5	480,800
990383	US 2	88.03	Skinney Cr Culvert Replacement	45.0701	2001	12.15	0.5	480,800
990381	US 2	87.1	Skinney Cr Culvert Replacement	45.0701	2002	13.5	3	460,000
990226	SR 20	161.9	Little Boulder Cr Culvert Replacement	48.1400	2005	33.67	5	567,136
990289	US 2	70.21	Mill Cr Culvert Replacement	45.0556	2006	19.00	11.6	1,676,431
990124	SR 20	206.9	Fraser Cr Culvert Replacement	48.0305	2006	19.05	12.3	700,915
990114	SR 20	205.8	Beaver Cr Culvert Replacement	48.0307	2006	43.61	80.55	700,915
			Region II Total Estimated Linear Habitat Gain (km):				226.46	
			Region II Total Estimated Expenditure:					6,423,038

Region III - OLYMPIC

SiteID	Road	MP	Stream	WRIA	Year	PI	Potential Lineal Gain (km)	Cost $
990446*	US 101	246.4	Tunnuger Cr Fishway	18.0256	1993	16.25	8.9	19,993
990155	SR 8	33.7	Parish Cr Fishway	15.0150	1997		1.6	16,855
990221*	US 101	253.9	Begley Cr Fishway	18.0185	1998	48.12	10.5	60,204
990198*	US 101	257.2	Johnson Cr Fishway	17.0301	1995	38.46	7.5	121,965
990145	SR 112	5.99	Ramsreve Cr Culvert Replacement	19.0330	1996	15.42	1.3	563,699
990197	US 101	171.7	Humptulips Cr Fishway	20.0437 E3	1996	24.59	1.1	16,596
990174*	US 101	146.9	Hatchie Cr Fishway	21.0124	1998	25.68	5.5	82,685
990169*	US 101	189.4	Crowder Cr Fishway	20.0237	1996	24.48	4.5	189,966
990181	US 101	184.9	Unnamed tributary to Fairchild Fishway	22.0052	1997	19.46	3.5	195,126
990224	SR 3	57.1	Kimsem Cr Culvert Replacement and Bedlow Installation	15.0158	1997	21.95	3.6	365,907
990143	US 101	185.6	Fairchild Cr Fishway	22.0051	1997	20.3	4.2	193,747

*Fish passage project, which is currently a partial or a total barrier to fish passage. For more information refer to Appendix IA

Table 5. (cont.)

Strnbl		Road	MP	Stream	WRIA	Year	PI	Potential Linear Gain (km)	Cost $
991501*		US 101	103.7	Unnamed tributary to Big Cr - new fishway built in 1997; fishway has up to 2003	22.0057	1997	37.07	3.4	326,327
991503		US 101	103.1	Unnamed tributary to SB Big Cr Culvert Replacement	22.0059	1998	23.02	3.8	250,000
990405*		US 101	162.6	Stemilt Cr	20.0576	1998	27.53	7.6	23,800
991765		US 101	162.7	Big Cedar Cr Baffles Installation	20.0576	1998	19.73	2.4	121,328
991278		SR 108	5.89	McDonald Cr Fishway	14.0023	1999	25.21	1.6	260,615
991270*		SR 109	36.65	Unnamed tributary to Pacific Ocean Fishway	21.0215	1999	12.18	5.1	189,566
990966		US 101	266.9	Valley Cr Baffles and Roughened Channel	19.0249	2000	21.07	2	102,707
991797*		SR 2	25.31	Sweetwater Cr Culvert Replacement	15.0404	2001	16.90	1.1	361,000
165100		US 101	167.4	Fletcher Cr Fishway	20.0426	2003	20.63	2.7	19,085
18.0234	1.10*	US 101	250	Basin Cr Fishway Upgrade	18.0234	2004	31.73	8.9	58,365
19.0110	0.50	SR 112	32.02	Jim Cr Culvert Replacement	19.0110	2004	28.5	14.1	870,000
17.0295	0.20	US 101	271	Jimmycomelately Cr Bridge	17.0295	2004	31.09	10.4	1,282,482
990754		SR 106	0.85	Skobeiah Cr Bridge	16.0003	2005	19.98	1.6	1,731,000
990514		SR 112	34.35	Boat Cr Culvert Replacement	19.0014	2006	17.21	3.7	466,151
990716		SR 112	20.93	Unnamed to Pysht R Culvert Replacement	19.01138	2006	25.36	1.0	647,773
992190		SR 104	12.7	Unnamed tributary to Squamish Harbor Culvert Replacement	17.0155	2009	32.89	1.8	1,475,368
991906		US 101		Morgan Cr Culvert Replacement	24.0157	2009	20.36	3.6	1,357,943
991244		SR 106	2.95	Unnamed tributary to Skokomish R Culvert Replacement	16.0002	2009	15.03	9.4	1,270,095
991742		SR 105	9.85	Bjorgen Cr Culvert Replacement	15.0179	2010	17.71	1.5	2,258,000
991709		SR 105	9.6	Unnamed tributary to Limery Bay Culvert Replacement	15.0291	2010	24.15	2.8	1,984,000
990837		US 101	182.1	Tributary to S Branch Big Cr Culvert Replacement	22.0059	2011	25.82	7.9	1,062,966
990729		US 101	180.9	Tributary to S Branch Big Cr Culvert Replacement	22.0059	2011	17.97	1.2	885,830
992493		US 101	65.09	Tributary to Lower Salmon Cr Culvert Replacement	24.0106	2011	14.46	4.6	1,595,251
				Region III Total Estimated Linear Habitat Gain (km):				144.722	
				Region III Total Estimated Expenditure:					20,183,746

*Fish passage project, which is currently a partial or a total barrier to fish passage. For more information refer to Appendix IA.

Table 5. (cont.)

Region IV - SOUTHWEST

Site Id	Road	MP	Stream	WRIA	Year	PI	Potential Lineal Gain (km)	Cost $
990517	SR 6	8.9	Green Cr Fishway Upgrade	24.0041	1997		1.8	8,000
990363	US 101	55.8	SF Nemah R Fishway	24.0503	1994	34.34	4.6	34,986
991911	SR 10	9.6	Stamper Cr Culvert Replacement	24.0342	1998	30.2	0.2	423,000
990315	SR 4	35.6	Birnie Cr Fishway	25.0281	1999	30.28	5.66	67,579
991696	SR 506	2.55	Unnamed tributary to Stillwater Cr Culvert Replacement	26.04798	2000	16.62	1.3	99,000
990036	SR 409	3.85	Birnie Cr Fishway	25.0281	2001	28.99	0.26	322,000
991220	SR 4	4.5	Johnson Cr Culvert Replacement	24.0581	2001	28.74	5.4	269,000
991449	SR 103	49.01	Kerron Cr Fishway	27.0570	2001	24.07	1.4	234,000
990071	SR 401	8.6	Cannell Cr Fishway	24.0598	2001	36.55	6.5	200,000
990377	US 12	81.27	Silver Cr Culvert Replacement	26.0460	2003	33.83	0.8	527,000
992223	SR 143	13.4	Snyder Canyon Cr Fishway Trap	30.0818	2006	23.19	6.3	**
30.0006 0.40	SR 142	20.3	Bowman Cr Bridge	30.0068	2006	32.35	36.7	1,495,495
992234	SR 122	4.99	Unnamed tributary to Mayfield Lake Culvert Replacement	26	2009	17.56	1.9	385,839
			Region IV Total Estimated Linear Habitat Gain (km):				74.958	
			Region IV Total Estimated Expenditures:					4,845,890

Region VI - EASTERN

Site Id	Road	MP	Stream	WRIA	Year	PI	Potential Lineal Gain (km)	Cost $
990299	SR 20	319	NF O'Brien Cr Culvert Replacement	52.0394A	2001	4.31	0.20	302,000
990300	SR 20	310.1	NF O'Brien Cr Culvert Replacement	52.0394A	2001	3.5	1.90	302,000
990312	SR 20	309.3	NF O'Brien Cr Culvert Replacement	52.0394	2001	6.29	11.70	302,000
			Region VI Total Estimated Linear Habitat Gain (km):				13.40	
			Region VI Total Estimated Expenditures:					906,000

**Combined with Bowman Cr bridge project.

PROJECT EVALUATION AND MONITORING

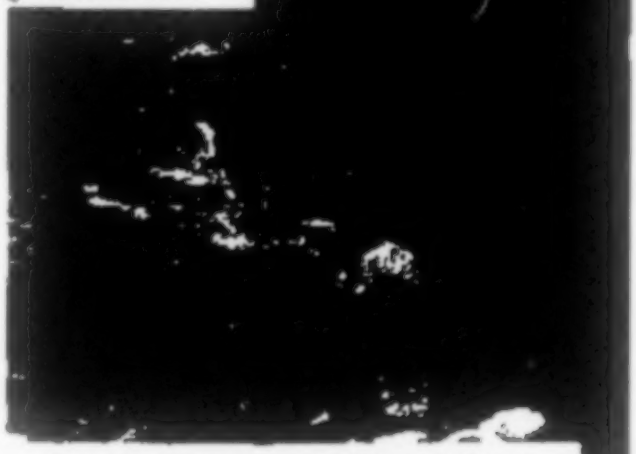
Evaluation of Stand-Alone I-4 Projects, Before and After Barrier Removal

The goal of the evaluation program is to:

- Determine fish utilization upstream and downstream of sites prior to and one year after project construction.
- Evaluate newly-constructed fish passage projects for design, durability, and efficiency immediately after construction and for one year following construction.

WDFW evaluates all fish passage barrier correction projects completed by WSDOT to ensure they are constructed according to fish passage criteria and designs and that they are functioning properly. All projects completed with dedicated funding are evaluated shortly after construction and for one year following construction. During this period, any construction deficiencies resulting in fish passage problems are noted and corrected whenever possible.

For a full list of spawner surveys conducted for dedicated funding projects that will be built in the near future, projects that were built in 2010 and 2011, as well as future projects refer to Appendix IV



Coho Salmon Spawning in Wagley's Creek

Adult spawner surveys are a direct way to determine species presence or absence above and below a newly completed fish passage project or to evaluate a pre-project barrier. Three such surveys are conducted for each project prior to construction and during the year following its completion. Typically, the surveys are conducted 500 meters below and above the project. The surveys may be shorter, if the distance to a confluence with a larger body of water downstream is less than 500 meters or if there is a natural barrier upstream within the 500 meters. If there is no spawning habitat within 500 meters upstream or downstream of the fish passage project, the survey may be relocated to where fish are likely to spawn.

Not all potential habitat may be utilized by salmonids immediately following a fish passage correction. In some cases it may take years before the newly opened habitat is utilized to its full potential. There are other factors influencing fish production. Among the many factors are surface water diversions, pollution, hydropower, unfavorable ocean conditions, predation, harvest, and general habitat degradation or loss.

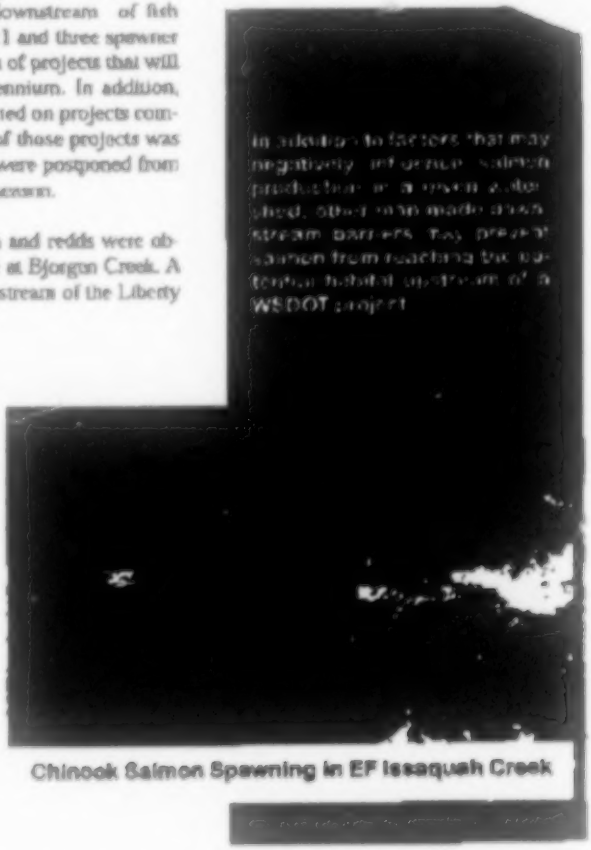
PROJECT EVALUATION AND MONITORING

If salmonids are not detected upstream of the fish passage project in the first year after construction, surveys may be performed in subsequent years.

In the fall of 2011, WDFW biologists conducted five spawner surveys upstream and downstream of fish passage projects completed in 2011 and three spawner surveys upstream and downstream of projects that will be completed within the next biennium. In addition, two spawner surveys were conducted on projects completed in 2010. The construction of those projects was delayed and the spawner surveys were postponed from the fall of 2010 to the fall of 2011 season.

Several spawned-out coho salmon and redds were observed upstream of the project site at Bjorgen Creek. A number of redds were observed upstream of the Liberty Bay project site.

No spawning salmon or redds were observed upstream of the three fish passage projects in the Olympic Region during the fall of 2011 spawner surveys. No spawning salmon nor redds were observed upstream of the tributary to Salmon Creek on US 101. There was no indication of salmon utilization of the upstream habitat on either of the tributary to Big Creek projects.



Chinook Salmon Spawning in EF Issaquah Creek

In November, 2011, adult coho salmon were observed spawning in the newly constructed channel at Wagley's Creek on US 2. Nine coho were observed passing through the newly constructed channel, under the bridge, utilizing the habitat that was blocked by an old dam that was removed in 2011.

Sixteen spawning chum salmon were observed downstream of Twanoh Falls Creek, a CED project that will be constructed in 2012. No spawning salmon were observed upstream of the Twanoh Falls Creek crossing. No spawning salmon were observed upstream or downstream of two other 2012 projects: Nelson Creek and a tributary to Pysht River.

COMPLETED FISH PASSAGE PROJECTS

Barriers Corrected through Transportation and Other Types of Funding Projects

WDFW has identified 172 fish passage projects that were carried out by WSDOT during transportation and other non-dedicated funding projects since 1955. In 2011, six fish passage barriers were corrected during road improvement projects. Two barrier culverts at unnamed tributaries to Lake Washington and one barrier culvert at a tributary to Yarrow Creek were replaced with fish passable culverts during a widening project on SR 520 (Figures 15, 16, and 17). Two fish passage projects were completed as part of the Chronic Environmental Deficiencies Program (CED): a total barrier culvert at Norris Slough on SR 105 was replaced with a bridge (Figures 21 and 22) and an undersized culvert that needed frequent maintenance was replaced with a bridge at Red Cabin Creek on SR 20 (Figures 23 and 24). During an I-5 widening project, a barrier culvert at an unnamed tributary to Dry Creek was replaced with a fish passable culvert (Figures 25 and 26).

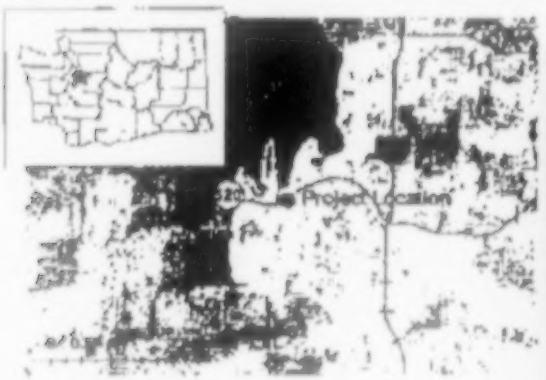
Table 6. Fish Passage Projects Completed in 2011 with Other Funding Sources

Site Id	WSDOT Region	Road	MP	Stream/ Project	WRIA	PI	Potential Linear Gain (km)
[illegible]	NW	SR 520	4.31	Lake Washington tributary Culvert Replacement	8	[illegible]	1.6
964459	NW	SR 520	4.48	Lake Washington tributary Culvert Replacement	8.0257	14.8	2.40
996119	NW	SR 520	5.81	Yarrow Creek tributary Culvert Replacement	8	6.32	0.32
990507	SW	SR 106	16.7	North Slough Bridge	24		3.5
[illegible]	NW	SR 20	73.75	Red Cabin Creek [illegible]	3.0705		1.1
999532	OLY	I-5	85.81	Dry Creek tributary Culvert Replacement	23		1.6

For a complete list of projects constructed with other types of funding see Table 7

An unnamed tributary to Lake Washington

Fish Passage Barriers Corrected during Transportation Projects



The unnamed tributary to Lake Washington crosses SR 520 at mile post 14.61. This project is located in the Northwest Region in Hunts Point, east of the city of Bellevue.

Before Construction

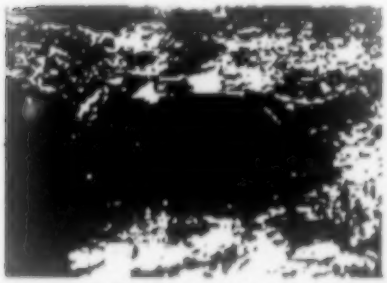
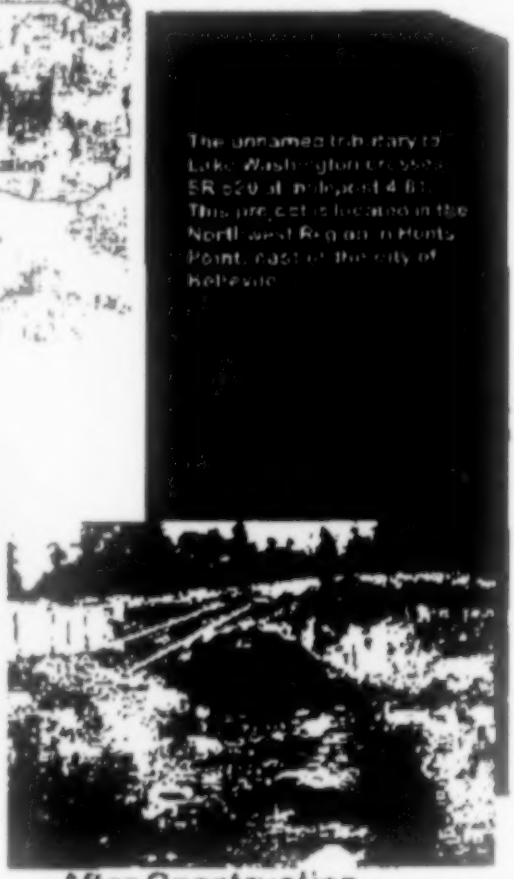


Figure 15. The old crossing consisted of a round corrugated steel culvert, 1.2 meters (3.9-foot) wide. The culvert was assessed as a barrier due to a 4.2% slope.



After Construction

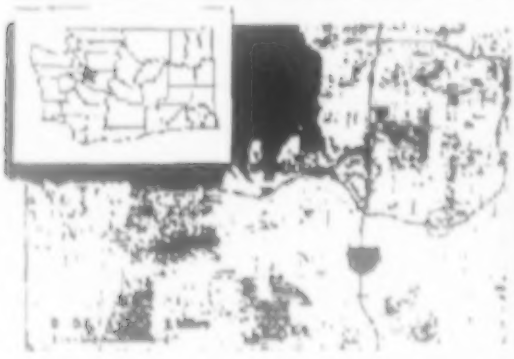
Figure 16. The new crossing is a corrugated aluminum arch culvert, 3.75 meter (12-foot) wide with natural streambed material placed inside to simulate natural stream conditions throughout the culvert. This fish passage project restored over one kilometer (0.62 miles) of potential habitat for coho salmon, and steelhead, searun and resident cutthroat trout.

Figure 17. The old crossing consisted of a round corrugated steel culvert, 1.52 meters (5-foot) wide. The culvert was assessed as a barrier due to a 3% slope.

Figure 18. The new crossing is a corrugated aluminum arch culvert, 3.8 meters (12-foot) wide, with natural streambed material to simulate a natural condition throughout the culvert. This fish passage project restored access to 2.4 kilometers (1.5 miles) of potential habitat for coho salmon, and steelhead, searun and resident cutthroat trout.

An unnamed tributary to Yarrow Creek

Fish Passage Barriers Corrected during Transportation Projects



The unnamed tributary to Lake Washington crosses SR 520 at milepost 5.81. The project is located in the city of Kirkland, Northwest Region.

Before Construction

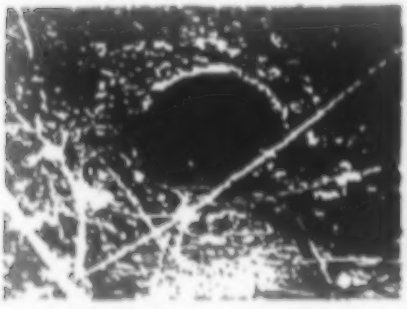


Figure 19. The old crossing consisted of a round concrete culvert, 1.27 meters (4.2-foot) in diameter. The culvert was assessed as a barrier due to a 3% slope.

After Construction

Figure 20. The new crossing is a concrete box structure, 3.6 meters (12-foot) wide with natural streambed material placed inside to simulate natural stream conditions throughout the culvert. This fish passage project restored access to 2.4 kilometers (1.5 miles) of potential habitat for coho salmon, and steelhead, searun and resident cutthroat trout.

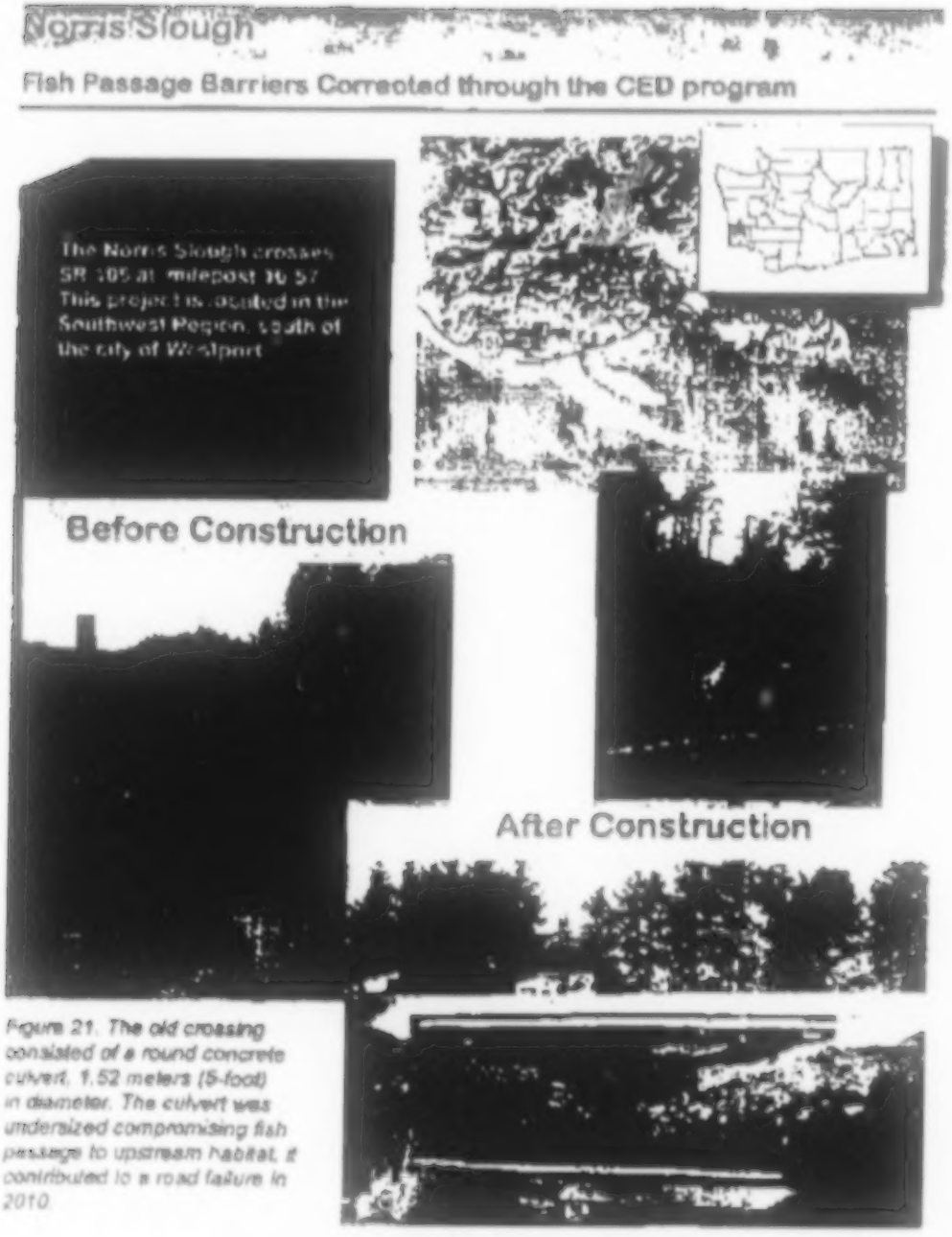


Figure 21. The old crossing consisted of a round concrete culvert, 1.52 meters (5-foot) in diameter. The culvert was undersized compromising fish passage to upstream habitat, it contributed to a road failure in 2010.

Figure 22. The new concrete bridge, 26.51 meters (87-foot) wide, restored access to 2.5 kilometers (1.5 miles) of potential habitat for coho and chum salmon, and steelhead, searun and resident cutthroat trout.

Red Cabin Creek

Fish Passage Barriers Corrected through the CED program

The Red Cabin Creek crosses SR 20 at milepost 75.75. This project is located in the Northwest Region, east of the city of Sedro-Woolley.

Figure 23. The old crossing was a twin concrete box culvert, 2.14 meters (7-foot) each that was undersized and periodically filled with sediments blocking fish access to the upstream habitat.

Figure 24. The new, 20.72 meters (68-foot) concrete bridge restored access to 14 kilometers (8.7 miles) of potential habitat for coho, chum, and Chinook salmon, and steelhead, searun and resident cutthroat trout.

An Unnamed Tributary to Dry Creek

Fish Passage Barriers Corrected during Transportation Projects

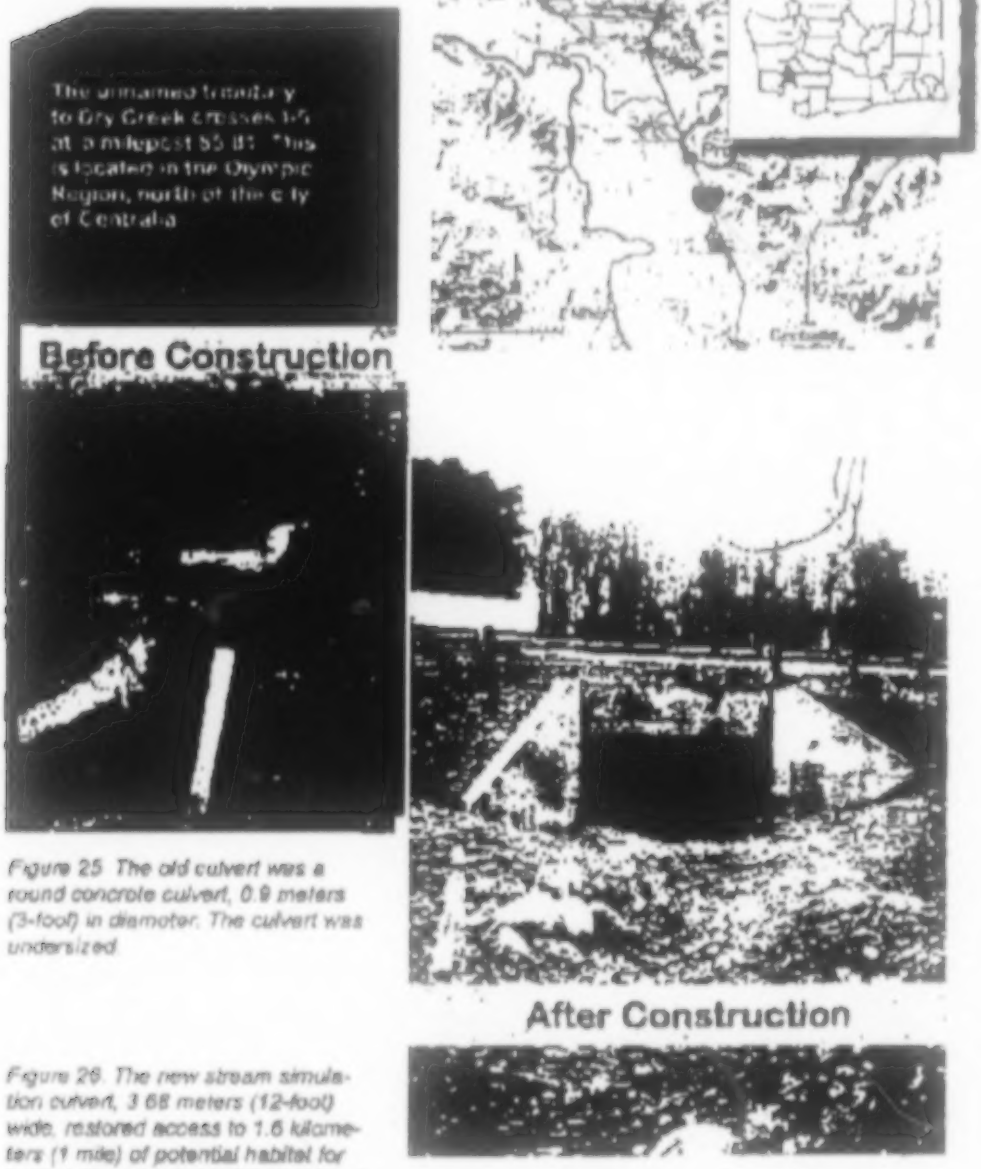


Figure 25. The old culvert was a round concrete culvert, 0.9 meters (3-foot) in diameter. The culvert was undersized.

Figure 26. The new stream simulation culvert, 3.66 meters (12-foot) wide, restored access to 1.6 kilometers (1 mile) of potential habitat for coho salmon, and steelhead, searun and resident cutthroat trout.

Table 7. Fish Passage Projects Completed through Other Funding Sources

WSDOT Region	Site Id	Road	MP	Stream	WRIA	Year	PI	Presumed Lineal Gain (km)	Fish Passage Satisfactory Yes/No
3	990440	SR 112	40.48	Whiskey Cr	19.0020	1955	12.73	2.72	No
1	01.0018 2.80	SR 532	6.14	Cleaver Cr	05.0018	1981	36.1	27.60	No
3	15.0051 0.10	SR 302	11.36	Little Minter Cr	15.0051	1982	20.47	8.10	No
3	15.0051 0.20	SR 302	11.42	Little Minter Cr	15.0051	1982	20.75	5.30	No
3	14.0010 0.10	US 101	356.8	Coursyline Cr	14.0010	1985	17.21	0.75	Yes
3	14.0009A 6.76	US 101	357.9	Hoteley Valley Cr	14.0009A	1986		1.77	Yes
1	03.0354A 6.84	SR 20	77.7	Little Careys Cr	03.0354A	1987		0.85	No
1	08.0049 3.80	I-5 NB	177.67	McAleer Cr	08.0049	1988		4.51	Yes
4	27.0300 0.00	SR 503	52.1	Robinson Cr	27.0300	1989		0.46	Yes
3	18.0021 5.40	US 101	260.93	Mannie Cr	18.0021	1989	14.71	8.08	No
1	990465	I-90	20.42	SF Issaquah Cr tributary	08.0186	1990		1.86	Yes
1	01.0228 4.80	SR 542	8.55	Anderson Cr	01.0228	1990		16.04	No
8	990415	I-5	246.73	Chuckanut Cr	01.0026	1993	9.24	1.15	No
3	15.0280 1.00	SR 308	1.15	B.J. Scandia Cr	15.0280	1993	21.00	6.43	No
1	08.0302 0.00	SR 169	22.62	Maplewood Cr	08.0302	1994		1.93	Yes
5	990189	US 97	37.14	Highbridge Springs	37	1994	6.13	1.13	No
1	08.0077 0.20	SR 527	6.57	Penny Cr	08.0077	1994	24.56	13.66	No
0	990644	SR 530	31.01	Stillaguamish R tributary	05	1995	14.36	1.90	No
1	991168	SR 530	31.9	Stillaguamish R tributary	05	1995		0.20	Yes
2	990952	SR 168	3.8	Clarlow Cr	15	1995		16.31	Yes
1	08.0070A 3.01	SR 527	4	Sulphur Springs Cr	08.0070A	1995		0.32	Yes
1	990272	SR 104	29.65	McAleer Cr	08.0049	1995	48.75	5.35	Yes
1	08.0075 0.70	SR 527	4.46	Silver Cr No2	08.0075	1995		2.58	Yes
1	08.0070B 6.90	SR 527	6.32	Mallard Cr	08.0070B	1995		1.29	Yes
1	991164	SR 530	52.51	Stillaguamish R tributary	05	1996		0.16	No
1	991156	SR 530	55.07	Hazelnut Cr	05.1062	1996		0.53	Yes
1	990064	SR 18	19.76	Carey Cr	08.0218	1996		18.22	Yes
1	991059	SR 531	8.71	MF Quilceda Cr	07	1996	16.23	2.84	No
1	991162	SR 530	31.2	Stillaguamish R tributary	05.0168X	1996		0.20	Yes
1	990271	SR 530	29.63	Mc Govern Cr	05.0168	1996		8.52	Yes
1	991519	SR 18	19.59	Carey Cr tributary	08.0218A	1996	16.25	1.75	Yes
1	991193	SR 530	55.9	Skagit R tributary	04.0707	1996		0.11	Yes
6	992462	US 101	28.92	Roaring Cr #1	24.0563	1997		0.41	Yes
3	990196	US 101	186.41	Franklin Cr	20.0237D	1997		1.02	Yes
3	990164	US 101	186.3	Fishermans Cr	20.0237E	1997		0.50	Yes

Table 7. Fish Passage Projects Completed through Other Funding Sources

WSDOT Region	Site Id	Road	MP	Stream	WRIA	Year	PI	Potential Local Gain (km)	Fish Passage Satisfactory Yes/ No
1	980716	US 101	180.45	Perkins Cr tributary	20.0249K	1997		0.20	Yes
3	991512	US 101	186.7	Forgotten Marsh	20.0237N	1997		0.28	Yes
3	991044	US 101	175.17	Old Joe Sl tributary	20.0440B	1997		0.10	Yes
6	990211	SR 20	389.5	Ranshaw Cr	62.0310	1997		4.47	No
1	990390	SR 18	8.9	Jenkins Cr	09.0073	1997	16.54	7.58	No
3	22.0349 0.70	US 12	17.36	Mitchell Sl tributary	22.0349	1997		9.98	Yes
1	991155	SR 530	54.6	Pilchuck Cr	04.1064	1997		2.80	Yes
6	990310	SR 20	388.13	Ranshaw Cr	62.0310	1997		0.12	No
3	991532	US 12	13.8	Chehalis R tributary	22.0356	1998		3.85	Yes
6	990250	SR 20	384.99	Lost Cr	62.0122	1998		13.90	No
3	990249	US 101	174	Lost Cr	20.0440	1998	17.72	1.34	Yes
1	1015-23	SR 203	7.83	Harris Cr tributary	07.0285	1998		5.85	Yes
3	105 R050320a	SR 167	12.85	Jovita Cr	10.0053	1998	22.4	4.68	No
1	997679	SR 509	25.69	Miller Cr	09.0331	1998	11.79	5.78	No
4	990116	SR 542	5.2	DiBeaut Cr	30.0030	1998	7.55	0.97	Yes
3	991852	SR 303	6.9	Barker Cr	15.0259	1998		4.44	Yes
1	07.0383A 0.50	SR 202	13.8	Dry Cr	07.0383A	1998		3.82	Yes
3	990121	SR 305	12.8	Dogfish Cr	15.0285	1998		14.96	Yes
5	944239	SR 520	8.27	Yarrow Cr	08.0252	1998		3.22	Yes
4	990119	SR 14	55.8	Dog Cr	29.0130	1998		0.12	No
4	990948	US 12	127.44	Dry Cr	26.1119	1999		3.45	Yes
4	997698	US 101	24.13	Willapa Bay tributary	24.0673	1999	21.43	0.67	Yes
3	991690	US 101	211.9	Stevens Cr tributary	22	1999	10.83	0.97	No
3	990370	US 101	299.6	Schneider Cr	14.0909	1999		11.60	Yes
4	997272	8.5	42.4	Cowlitz R tributary	26.0129	1999	12.05	1.19	Yes
6	990881	SR 20	360.1	Lk Thomas tributary	59	2000		0.86	No
1	105 R0719160	SR 410	40.59	Boundary Cr	10.0250	2000	7.55	0.60	No
5	990436	US 97	57.3	Toppenish Cr	37.1178	2000		21.13	Yes
3	991295	SR 105	31.1	South Bay tributary	22	2000		0.20	Yes
1	991788	SR 20	90.13	Skagit R tributary	04	2000		0.28	Yes
1	990294	SR 538	2.47	Maxwell Cr	07.0073	2000		1.09	No
1	04410	SR 20	114.94	Damnation Cr	04.1844	2001		2.38	Yes
3	991729	SR 112	19.56	Clallam R tributary	19	2001	7.5	0.20	Yes
4	991397	SR 4	25.91	Skamokawa R tributary	25	2001		0.34	Yes
4	990271	SR 142	3.65	Knight Cr	30.0008	2001		11.57	Yes

Table 7. Fish Passage Projects Completed through Other Funding Sources

WSDOT Region	Site Id	Road	MP	Stream	WRIA	Year	PI	Potential Habitat Gain (km)	Fish Passage Satisfactory Year No
5	991545	SR 112	19.49	Clallam R tributary	19.0129A	2001	10.43	0.20	Yes
5	990164	SR 112	48.49	Field Cr	19.0006	2001	17.39	8.91	No
6	992006	SR 21	172.17	Lambert Cr	60.0127	2001	9.96	19.27	Yes
1	990625	SR 9	34.37	Stillaguamish R tributary	05.0080H	2002		1.06	Yes
1	NC190	SR 9	35.69	Lk Michigan tributary	05	2002	9.22	0.35	No
1	NC170	SR 9	39.87	unnamed	05	2002	5.46	0.29	No
1	LP28	SR 9	35.7	unnamed	05	2002		0.20	Yes
1	LP29	SR 9	35.46	Pilchuck Cr tributary	05.0090B	2002		0.73	Yes
1	LP27	SR 9	35.53	unnamed	05.0090C	2002		0.30	Yes
1	993115	I-405	29.67	Martha Cr	08	2002	11.31	2.82	Yes
1	LP33	SR 9	28.69	unnamed	05	2002		0.70	No
1	991166	SR 9	32.2	Stillaguamish R tributary	05.0129A	2002		0.55	No
1	990190	SR 9	69.88	Samish R tributary	03	2002		0.65	No
8	990202	US 97	150.32	Ipsa Cr	46.1209	2002		15.83	No
5	990409	SR 410	82.8	Weeb Cr	39	2002	5.61	0.72	No
1	990262	SR 522	1.87	Maple Leaf Cr	08.0033	2002	13.29	2.35	Yes
1	08.0110 0.10	SR 202	10.00	Rutherford Cr	08.0110	2002		0.77	Yes
1	990344	SR 9	28.38	Portage Cr	05.0036	2002		7.11	Yes
5	990400	SR 241	9.17	Sulphur Springs tributary	37	2002		4.13	Yes
1	989981	SR 9	0.88	Little Bear Cr tributary	08	2000		0.66	Yes
1	991189	SR 527	6.99	North Cr tributary	08	2003		0.50	Yes
1	08 0183 1.60	I-90	17	EF Issaquah Cr	08.0183	2003		9.98	Yes
1	1015-27	SR 203	12.76	Deer Cr	07	2003		1.17	Yes
6	991415	SR 401	3.22	Columbia R tributary	24	2003		1.50	Yes
1	991199	SR 167	23.65	Upper Springbrook Cr	09.0020	2003		0.86	Yes
6	990180	SR 21	155.06	Golden Harvest Cr	52.0152	2003		21.77	Yes
1	995917	SR 20	25.77	Penn Cove tributary	06.0003	2003		1.28	Yes
1	990208	SR 18	13.7	Jenkins Cr	09.0087	2003		16.38	Yes
1	990209	SR 18	13.8	Jenkins Cr	09.0087	2003		8.21	Yes
3	990910	SR 108	6.95	Delphy Cr	14	2003	20.16	0.83	Yes
1	995578	SR 542	64.14	Nooksack R tributary	01	2004		0.20	Yes
1	990434	SR 542	15.32	Jim Cr	01	2004		0.93	Yes
1	109 NC120 9a	SR 309	10.71	Laluta Cr	10.0386	2004		2.13	Yes
3	115 NC170	SR 108	7.04	Alderbrook Cr	14	2004		0.94	Yes
1	991466	SR 167	25.65	Springbrook Cr tributary	09.0006	2004		5.99	Yes

Table 7. Fish Passage Projects Completed through Other Funding Sources

WSDOT Region	Site Id	Road	MP	Stream	WRIA	Year	PI	Potential Lineal Gain (km)	Fish Passage Satisfactory Yes/ No
6	990156	SR 11	6.94	Edison SB	03 0001	2004		14.13	Yes
4	992313	US 101	53.96	Old Mill Pond Cr	24	2004	13.68	0.64	Yes
6	995380	SR 542	44.34	Nooksack R tributary	01	2004		0.30	Yes
6	990036	SR 522	18.77	unnamed	07	2005	6.42	0.37	Yes
2	991636	SR 706	8.83	Ohanapecosh R tributary	11 0008A	2005		7.26	Yes
5	990995	SR 261	5.5	Tarrance R tributary	35	2005		2.00	No
6	995182	SR 542	45.51	Nooksack R tributary	01	2005		0.17	Yes
6	182 N171	SR 527	7.38	Mill Cr	08.0070	2005		1.12	Yes
3	991227	SR 706	9.81	Nisqually R tributary	11.0222	2005		0.33	Yes
3	991775	US 101	E30.6	Ten O'Clock Cr tributary	21	2005		0.24	Yes
1	991630	SR 161	33.9	DF Hylebos Cr tributary	10.0016A	2005		2.14	Yes
1	991576	SR 18	18.19	Tawler Cr	08.0726	2005	20.54	3.36	Yes
1	990436	FR 19	18.43	Tawler Cr	08.0726	2005	27.48	1.64	Yes
1	995087	SR 527	9.33	Reggie R tributary	OR	2005		0.29	Yes
1	995584	SR 542	45.57	Nooksack R tributary	01	2005		0.79	Yes
2	992558	SR 262	13.19	Irrigation Ditch	41	2005		11.00	Yes
4	992334	SR 522	18.44	Evans Cr tributary	07.0211	2005	21.2	2.79	Yes
1	991196	SR 99	15.94	McSorley Cr	9.0381	2005		1.85	No
1	08.0328 1.30	SR 18	18.94	Downs Cr	08.0320	2006		7.26	Yes
1	990376	I-405	19.12	Forbes Cr	08.0342	2006	5.26	1.30	No
1	370220	SR 9	96.1	Bannerman Cr	01.0406	2006		0.74	Yes
1	370219	SR 9	96.6	Bunn Cr	01.0405	2006		4.40	Yes
2	15.0285 W 0.50	SR 300	12.34	SF Duglish Cr	15.0285 W	2006		1.59	Yes
2	990998	SR 305	11.62	SF Duglish Cr	15	2006	15.7	1.54	Yes
2	991054	SR 305	12.39	SF Duglish Cr	15	2006		0.67	Yes
1	995980	SR 9	0.97	Little Bear Cr tributary	08	2006		0.50	Yes
1	990516	SR 9	1.16	Cutthroat Cr	08.0083	2006	22.56	3.86	No
1	995979	SR 20	14.05	Crocker Ck	06.0053	2006		2.86	Yes
6	994471	SR 31	18.72	Three Mile Cr	62.0053	2006		0.20	Yes
3	991052	SR 305	12.1	SF Duglish Cr	15	2006		1.11	Yes
3	991566	SR 303	5.6	Steele Cr	15.0074	2007		3.20	Yes
6	990178	SR 542	38.3	Boulder Cr tributary	01.0425	2007		3.16	Yes
1	996419	SR 524	13.03	Whistle Cr	08	2007		0.20	Yes
1	961708	SR 548	6.35	Terrell Cr	01.0089	2007	46.82	6.03	Yes
6	990203	SR 20	1.07	Blue R	55	2007		2.70	Yes

Table 7. Fish Passage Projects Completed through Other Funding Sources

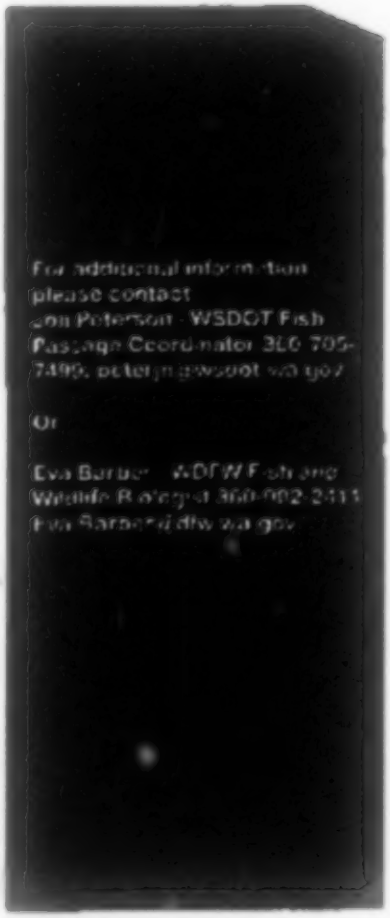
WSDOT Region	Env Id	Road	MP	Stream	WRIA	Year	PI	Potential Lineal Gain (km)	Fish Passage Satisfactory Yes/ No
2	992705	SR 207	1.3	Nisqua Cr tributary	45	2007		1.08	Yes
2	995038	US 2	57.8	Tye R tributary	07	2007		0.23	No
3	990122	SR 307	0.07	Dogfish Cr	15.0285	2007	32.07	14.94	Yes
6	995837	SR 270	4.29	Paradise Cr tributary	34	2007		7.44	Yes
6	999625	SR 270	9.08	Paradise Cr tributary	34	2007		2.59	Yes
2	994035	SR 20	278.6	Bonaparte Cr	49.0246	2007	6.62	17.68	No
4	994652	I-5	11	Gee Cr tributary	27.0168A	2008	13.95	2.07	Yes
1	991687	SR 9	31.01	Kackman Cr	01	2008		0.78	Yes
1	991661	SR 534	9.1	Pilchuck Cr	05	2008	12.28	8.15	Yes
1	985209	SR 96	3.96	unnamed	07	2008		8.08	Yes
3	999499	US 12	519.35	Touchet R	32	2008			No
1	991109	SR 539	2.86	Baker Cr tributary	04.0553	2008		0.38	Yes
1	1294060	SR 543	20.29	Boulder Cr tributary	01.0425	2008		0.56	Yes
1	990112	SR 539	4.3	Deer Cr	01.0169	2008	31.44	2.61	Yes
1	FD01	SR 20	44.74	Meadow Cr	05	2008	28.68	8.28	Yes
1	991184	SR 900	20.09	Clay Cr	08.0172	2009	9.49	0.28	Yes
1	991723	SR 900	20.34	Tibbetts Cr tributary	08.0171	2009	12.47	0.65	Yes
1	990946	SR 542	28.76	Bruce Cr	01	2009	8.36	5.15	Yes
3	990159	SR 16	20.96	Burley Cr tributary	15	2009		0.18	Yes
3	993176	SR 16	20.2	Burley Cr tributary	15	2009		0.24	Yes
4	994206	I-5	74.09	Barnwick Cr	23.0081	2009		61.38	Yes
5	991080	SR 542	16.07	Nooksack R tributary	01	2010		0.28	Yes
4	992821	US 101	3.3	Columbia R tributary	24	2010	27.23	8.68	Yes
6	997498	US 2	296.35	Deadman Cr	55.0051	2010		92.20	Yes
4	998530	SR 270	40.09	Pine Cr tributary	34	2010		7.59	Yes
3	981252	US 101	335.02	Hood Canal tributary	16.0218	2010	12.34	0.21	Yes
1	AR10	SR 20	75.75	Red Cabin Cr	3.0045	2011		16	Yes
1	994119	SR 530	9.81	Varney Cr tributary	5	2011	6.36	0.52	Yes
1	990987	SR 530	4.81	Lake Washington tributary	8	2011		1.05	Yes
1	994459	SR 520	4.48	Lake Washington tributary	8.0257	2011	14.8	2.40	Yes
3	999332	I-5	85.81	Dry Cr tributary	22	2013		1.6	Yes
4	990307	SR 105	16.57	Morris Sl	24	2011		2.5	Yes

QUESTIONS AND ANSWERS

Commonly Asked Questions about WSDOT Fish Passage Barrier Culverts

How can I find out if there are fish passage barriers in my project area?
A list of WSDOT fish passage culverts can be found in the WSDOT Fish Passage Inventory Annual report, which is located on WSDOT's Biology Program Web Page.

What is a PI?
PI stands for Priority Index and is a numeric indicator used to consolidate the many factors related to a fish barrier removal project prioritization (such as expected passage improvement, production potential of the blocked stream, fish stock health, etc.). The PI is used for developing prioritized lists of stand-alone fish barrier removal projects. Stand-alone fish barrier removal projects are prioritized by WDFW to target sequential correction of barriers that have the largest gains in fish habitat and the greatest production benefits for fish (higher the PI the greater the benefits). The PIs for most culverts are listed in the WDFW database and are included in the Appendix C of each WSDOT region.



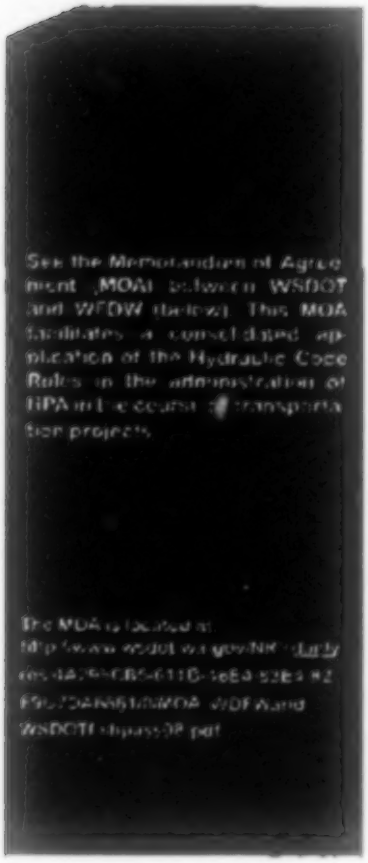
What if a culvert barrier does not have a PI? Does that mean the culvert is a low priority?
It means that WDFW inventoried the culvert but has not yet completed the habitat assessment work necessary to calculate the PI. The PI plays an important role in the prioritization of I-4 Fish Barrier removal projects; however, it should not be a factor in deciding which culverts are replaced as part of a highway project.

What about a culvert that is listed as a partial barrier – does it still need to be fixed?
The culvert is still considered a barrier. The percent passability is factored into the PI. A partially passable culvert will have a lower PI than a totally impassable culvert with all other factors being equal.

A culvert on a highway project has a low PI. Does this mean that it doesn't need to be fixed?
If a transportation (safety or mobility) project involves work on a fish barrier culvert that requires a Hydraulic Project Approval (HPA), then WSDOT is required to fix the barrier as part of that project.

What if there is conflicting information about whether a culvert within a project boundary is a barrier or not – what should be done to resolve this?
Contact Jon Peterson at WSDOT or Eva Barber at WDFW to determine if the culvert is a barrier or not.

A fish passage barrier culvert within a project's limit has less than 200 meters of habitat upstream from the culvert. Does it need to be fixed?



If work on the culvert requires an HPA then yes, the culvert needs to be corrected or replaced. The minimum 200 meters of habitat criteria is used for stand-alone culverts being corrected using I-4 funds and not those being fixed as part of a highway construction project.

Should a fish passage barrier culvert that will cost several million dollars be replaced with a fish passable one if it only provides access to a very short degraded section of stream that ends in a storm water pond?
In very rare cases, an exception may be made if it is determined that a barrier correction requiring an HPA would provide an extremely minimal gain for fish and require extraordinary high cost. Consideration of this exception would require agreement with WDFW and would not be based on the presence of other human-made barriers in the stream. In this case, it is understood that WSDOT is ultimately responsible to correct the barrier in the future, and would be required to provide mitigation to compensate for the habitat loss resulting from the presence of the barrier until it is corrected. The Memorandum of Agreement (MOA) between WSDOT and WFDW facilitates a consolidated application of the Hydraulic Code Rules in the administration of HPA in the course of transportation projects.

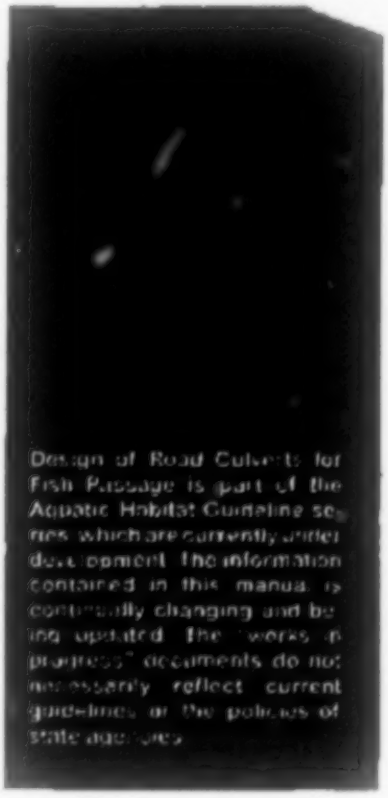
While getting ready to complete permitting for a project, two new fish barrier culverts were discovered. There are no funds left in the project; can I-4 funds be used to fix these culverts?
This question emphasizes the importance of early identification of deficiencies that need to be fixed as part of any highway safety and mobility construction project. I-4 funds are not available to fix culverts that would ordinarily be fixed as part of a highway construction project (no matter when they are found in the project process). This would defeat the purpose of having a stand-alone program targeting the highest priority culverts that would otherwise not be corrected during a highway project anytime in the near future.

A project office has been assigned to design a fish passable culvert. Are there any guidelines to help in designing this project?

Design of fish barrier correction is based on the latest version of WDFW's Design of Road Culverts for Fish Passage manual (available on line at http://wdfw.wa.gov/publications/pub.php?id=00049). Engineering assistance and guidance is also available by contacting WDFW's Restoration Division (formerly Technical Applications Division).

Does a barrier culvert within a road project that does not need an HPA need to be fixed as part of this highway project?

Serious consideration should be given to correcting the barrier, even though WSDOT is not required to do so according to the MOA. The cost of the barrier correction relative to the overall cost of the project should be considered. Also, in this case, the quantity and quality of the upstream habitat should be considered in making the decision. Opportunities to correct barriers should be capitalized on during projects while crews and equipment are mobilized to significantly reduce the number of fish passage barriers under state highways. If the barrier is not fixed during the road project, it remains on the barrier list and must be fixed at some point in the future. Sometimes avoiding fixing the culvert during the current highway project may make future corrections more difficult and costly, if for example, the current project buries the culvert with fifty feet of fill or blocks it with a retaining wall.



Design of Road Culverts for Fish Passage is part of the Aquatic Habitat Guideline series which are currently under development. The information contained in this manual is continually changing and being updated. The "works in progress" documents do not necessarily reflect current guidelines or the policies of state agencies.

The plans to widen the road over a fish passage barrier culvert include construction of vertical retaining walls to avoid touching the culvert and an HPA. Is that OK?

Under the MOA, technically the answer is yes. If a project does not require an HPA there is no requirement to make the culvert fish passable. However, project offices should carefully consider the cost of making it passable at some future date after the construction of the retaining walls. The barrier will need to be fixed eventually, so any action taken to avoid correcting the barrier will only add to the cost of making it passable in the future.

UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF WASHINGTON
AT SEATTLE

UNITED STATES OF AMERICA, et al., Plaintiffs, v. STATE OF WASHIGNTON, et al., Defendants.	No. C70-9213 Subproceeding No. 01-1 (Culverts) PERMANENT INJUNCTION REGARDING CULVERT CORRECTION

This matter came before the Court for trial beginning on October 13, 2009, for the purpose of determining the appropriate remedy for the violation by the defendants of certain of the Plaintiff Tribes' rights under treaties between the Tribes and the United States. By amended order dated August 23, 2007, the Court has ruled that the State of Washington has built and currently operates stream culverts that block fish passage to and from the Tribes' usual and accustomed fishing places, depriving the Tribes of the fishing rights reserved in the treaties. The Court has carefully and fully considered the Court's prior rulings in this subproceeding, the evidence presented at the remedy phase trial, the pre-trial and post-trial briefings of the parties, the arguments of counsel and applicable law, and on March 29, 2013 entered Findings of Fact and Conclusions of Law. Based upon the foregoing, it is hereby:

Ordered, adjudged and decreed that the State of Washington, the Washington State Department of Transportation (WSDOT), the Washington State Department of Fisheries and Wildlife (WDFW), the Washington State Department of Natural Resources (DNR), and the Washington State Parks and Recreation Commission (State Parks), their agents, officers, employees, successors in interest, and all persons acting in concert or participation with any of them (Defendants), are permanently enjoined and restrained to obey, to respect, and to comply with all rulings of this Court in this subproceeding and with each provision of this injunction, subject only to such modifications as may be approved by the Court in the future.

1. As used in this injunction, the word "culvert" shall mean any structure, other than a full-span bridge or tide gate, that is constructed to convey water beneath a roadway, and shall also include associated fishways or other fish passage structures, and bridges built to replace any culvert that is subject to this injunction. The word "salmon" shall mean any of the six species of anadromous salmonids of the genus Oncorhynchus, commonly known as chinook, chum, coho, pink, and sockeye salmon, and steelhead.

2. Within six months of the date of this injunction, the Defendants, in consultation with the Plaintiff Tribes and the United States, shall prepare a current list, or lists if different by agency (the List), of all culverts under state-owned roads within the Case Area existing as of the date of this injunction, that are salmon barriers. In compiling the List, the Defendants shall use the barrier assessment methodologies in the Fish Passage Barrier and

Surface Water Diversion Screening Assessment and Prioritization Manual (WDFW 2000) (WDFW Assessment Manual).

3. In addition to compiling the List, the Defendants shall make ongoing efforts to assess and identify culverts under state-owned roads in the Case Area that become partial or full barriers to salmon passage after the entry of this Injunction, using the WDFW Assessment Manual or any later state barrier assessment standards, provided such standards are consistent with the terms of this injunction.

4. Any new culvert constructed by the Defendants in the future on salmon waters within the Case Area and any future construction to provide fish passage at State barrier culverts on such waters shall be done in compliance with the standards set out in this injunction.

5. By October 31, 2016, WDFW, DNR, and State Parks shall provide fish passage in accordance with the standards set out in this injunction at each barrier culvert on the List located on lands owned or managed by those agencies in the Case Area.

6. Within 17 years of the date of this injunction, WSDOT shall provide fish passage in accordance with the standards set out in this injunction at each barrier culvert on the List owned or managed by WSDOT if the barrier culvert has 200 lineal meters or more of salmon habitat upstream to the first natural passage barrier.

7. WSDOT shall provide fish passage in accordance with the standards set out in this injunction at each culvert on the List having less than

200 lineal meters of upstream salmon habitat at the end of the culvert's useful life, or sooner as part of a highway project, to the extent required by other applicable law.

8. Notwithstanding the provisions of paragraph 6, above, WSDOT may defer correction of an aggregation of culverts that cumulatively comprise barriers to no more than 10% of the total salmon habitat upstream of those WSDOT culverts that would otherwise be subject to correction on the schedule set forth in Paragraph 6, but only upon fulfillment of the following conditions: In consultation with the Plaintiff Tribes and the United States, the Defendants shall develop and complete an assessment of the amount of salmon habitat upstream of each WSDOT barrier culvert on the List for which a "full physical survey," as described in § 3.4 of the WDFW Assessment Manual, has not been completed as of the date the List is compiled. In conducting the assessment, the Defendants shall use the full physical survey methodology or such other methodology as the parties may agree upon. Each correction deferred by this provision shall be corrected to the standards of this injunction at the end of the culvert's useful life, or sooner as part of a highway project, to the extent required by other applicable law. In undertaking the corrections, the Defendants shall be guided by the principle of providing the greatest fisheries habitat gain at the earliest time. The Defendants may utilize the "Priority Index" methodology described in the WDFW Assessment Manual in determining the sequence of correction if they so desire.

9. In carrying out their duties under this injunction, the Defendants shall design and build fish

passage at each barrier culvert on the List in order to pass all species of salmon at all life stages at all flows where the fish would naturally seek passage. In order of preference, fish passage shall be achieved by (a) avoiding the necessity for the roadway to cross the stream, (b) use of a full span bridge, (c) use of the "stream simulation" methodology described in Design of Road Culverts for Fish Passage (WDFW, 2003) or Stream Simulation: An Ecological Approach to Providing Passage for Aquatic Organisms at Road-Stream Crossings (U.S. Forest Service, May 2008), which the parties to this proceeding have agreed represents best science currently available for designing culverts that provide fish passage and allow fluvial processes. Nothing in this injunction shall prevent the Defendants from developing and using designs other than bridges or stream simulation in the future if the Defendants can demonstrate that those future designs provide equivalent or better fish passage and fisheries habitat benefits than the designs required in this injunction.

10. In rare circumstances, Defendants may deviate from the design standards in paragraph 9, above, if they can establish or the parties agree that use of the standards required in paragraph 9 is not feasible because of: (a) an emergency involving an immediate threat to life, the public, property, or of environmental degradation, and a correction using the required design standards cannot be implemented in time to forestall that threat; or (b) the existence of extraordinary site conditions. If a design standard other than that specified in paragraph 9 is used, in addition to providing the best feasible fish passage at the barrier site, the Defendants shall mitigate for the

impacts of deviating from the standards of this injunction so that the resulting correction plus any mitigation provides at least the same net benefit to the salmon resource as would have occurred had the correction applied the required standards.

11. The Defendants shall provide fish passage in accordance with the standards set out in this injunction within a reasonable period of time: (a) when any culvert corrected under the injunction remains a barrier culvert after attempted correction, or again becomes a barrier culvert following an initially successful correction, or (b) when any culvert is newly identified as a salmon barrier culvert after the initial completion of the List.

12. The Defendants shall monitor their implementation of the injunction, and evaluate whether their efforts to provide fish passage at their salmon barrier culverts are effective in meeting the standards of this injunction. The Defendants shall take reasonable steps to maintain their culverts in such a manner as to prevent development of fish barriers and to protect salmon habitat.

13. The Defendants shall provide the interested Tribes with sufficient notice of State barrier culvert inventory, identification of previously unidentified State barrier culverts, assessment, and potential or actual State barrier culvert correction activities to permit the Tribes to monitor and provide effective recommendations for compliance with the requirements of this injunction.

14. The Court shall retain continuing jurisdiction over this subproceeding for a sufficient

period to assure that the Defendants comply with the terms of this injunction.

Respectfully submitted this 29th day of January, 2010.

PLAINTIFF-INTERVENOR TRIBES

By: s/ JOHN C. SLEDD, WSBA # 19270
Attorney for the Hoh, Jamestown S'Klallam, Lower Elwha Klallam, Nisqually, Port Gamble S'Klallam, Sauk-Suiattle, Skokomish, Squaxin Island, Stillaguamish and Suquamish Tribes

By: s/ LAURA SAGOLLA, Admitted *Pro Hac Vice*
Attorney for the Hoh, Jamestown S'Klallam, Lower Elwha Klallam, Nisqually, Port Gamble S'Klallam, Sauk-Suiattle, Skokomish, Squaxin Island, Stillaguamish and Suquamish Tribes

By: s/ ALAN C. STAY, WSBA # 4569
Attorney for the Muckleshoot Indian Tribe

By: s/ MASON D. MORISSET, WSBA # 273
Attorney for The Tulalip Tribes

By: s/ DANIEL A. RAAS, WSBA # 4970
Attorney for the Lummi Nation

By: s/ HARRY L. JOHNSEN, WSBA # 4955
Attorney for the Lummi Nation

By: s/ THOMAS ZEILMAN, WSBA # 28470
Attorney for the Yakama Nation

By: s/ LAUREN P. RASMUSSEN, WSBA # 33256
Attorney for the Jamestown S'Klallam and Port Gamble S'Klallam Tribes

By: s/ ALIX FOSTER, WSBA # 4943
Attorney for the Swinomish Indian Tribal Community

By: s/ EDWARD WURTZ, WSBA # 24741
Attorney for the Nooksack Tribe

By: s/ BRIAN GRUBER, WSBA # 32210
Attorney for the Makah Tribe

By: s/ SAMUEL J. STILTNER, WSBA # 7765
Attorney for the Puyallup Tribe

By: s/ HAROLD CHESNIN, WSBA # 398
Attorney for the Upper Skagit Tribe

By: s/ O. YALE LEWIS III, WSBA # 33768
Attorney for the Quileute Tribe

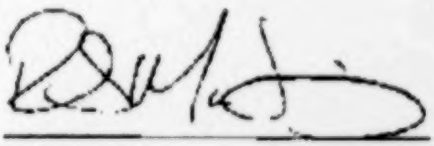
By: s/ ERIC J. NIELSEN, WSBA # 12773
Attorney for the Quinault Indian Nation

THE UNITED STATES OF AMERICA

By: s/ PETER C. MONSON
United States Department of Justice

ORDER

Is it is so ORDERED this 29th day of March 2013.



RICARDO S. MARTINEZ
UNITED STATES DISTRICT JUDGE

UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF WASHINGTON
AT SEATTLE

UNITED STATES OF AMERICA, et al., Plaintiffs, v. STATE OF WASHIGNTON, et al., Defendants.	No. CV 9213RSM Subproceeding No. 01-01 ORDER ON MOTIONS IN LIMINE

This matter is before the Court for consideration of the parties'[1] three motions in limine. Dkt. ## 572, 573, 574. The Court has fully considered the parties' memoranda and supporting exhibits. On October 7, 2009, at the pretrial conference in this matter, the Court made preliminary rulings on the motions in limine. This Order formalizes those rulings.

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[1]The parties to this subproceeding shall be designated as defendant "the State" (State of Washington), and plaintiffs "the Tribes" (Suquamish Indian Tribe, Jamestown S'Klallam, Lower Elwha Band of Klallam, Port Gamble Clallam, Nisqually Indian Tribe, Nooksack Tribe, Sauk-Suiattle Tribe, Skokomish Indian Tribe, Squaxin Island Tribe, Stillaguamish Tribe, Upper Skagit Tribe, Tulalip Tribe, Lummi Indian Nation, Quinault Indian Nation, Puyallup Tribe, Hoh Tribe, Confederated Bands and Tribes of the Yakama Indian Nation, Quileute Indian Tribe, Makah Nation, Muckleshoot Indian Tribe, and Swinomish Tribal Community).

(1) Motion in Limine re: Martin Fox, PhD. (Dkt. # 572)

The State moves to exclude the testimony and opinion of Martin Fox, PhD., relating to his "field testing" of culverts. Dr. Fox, whom the State describes as a fisheries biologist with no experience designing culverts, selected 28 State (WSDOT) culvert sites (repaired culverts) for evaluation as to their efficacy in fish passage. The State contends that his opinions should be excluded as his report is not a peer-reviewed study and relies on no standard or published protocol. The State argues that under *Daubert*,[2] a study that was produced for the purposes of litigation is subject to especially strict scrutiny by the Court, as "gatekeeper". The State also contends that there is no distinction between bench and jury trials in the *Daubert* standards for admissibility of scientific evidence.

Where an expert is deemed qualified to testify, the approach taken in this Circuit (and the practice of this Court) for bench trials is to allow the testimony, and subject it to vigorous cross examination. The Tribes have produced a resume demonstrating that Dr. Fox is not only a fisheries biologist; he has an undergraduate degree in fisheries biology, but he has both a Masters' degree and Ph.D. in Forest Hydrology and Engineering. He is therefore highly qualified to

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[2]*Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993).

testify on his evaluation of the culverts, even though his experience does not include culvert design.

This motion in limine (Dkt. # 572) is accordingly DENIED.

(2) Motion to Exclude Testimony on Fish Production Potential (Dkt. # 573)

In a second *Daubert* motion, the State argues that the Tribes' experts have improperly utilized two methodologies developed by State's scientists, namely the "PI" or Priority Index, and the "60 Day Low Flow" or "Zillges" method, to estimate the numbers of "lost" salmon that can be attributed to the State's blocked or partially-blocked culverts. Although the Court ruled in the Order Granting Summary Judgment on liability that the Tribes need not quantify the numbers of missing fish for that purppose [sic], they now seek to establish the numbers for the purpose of establishing their damages.

The Priority Index, or "PI" is a formula developed by the State to prioritize the replacement of culverts—that is, to determine which culverts will likely provide the maximum benefit in terms of fish production so those culverts can be replaced first. As set forth in the Declaration of Paul Sekulich, attached to the State's motion, the terms in the formula have the following definitions: PI is the sum, for all salmon species, of a figure determined by taking the quadratic root of the product of "BPH" times "MDC". Dr. Sekulich explains that the "MDC" terms are all modifiers which are relevant only to cost/benefit determinations. The relevant terms of the equation, and the ones taken by the Tribes for their fish production calculations, are the "BPH" factors. B is a

number which reflects the passage improvement achieved from a particular culvert correction project. It roughly reflects whether the culvert if a partial or total barrier to fish passage. P is [sic] the annual fish production potential per meter squared of habitat opened up if the culvert were to be repaired or replaced. Each salmon species has its own P number. H (for "habitat") reflects the number of square meters of habitat that would be opened up for smolting or spawning if a given culvert were repaired.

The State complains that the Tribe's data expert Tyson Waldo has improperly taken figures calculated by the State for the purpose of PI determination, and used them to predict values for the "lost" fish. It appears that what Mr. Waldo did was to take the P and H values used by the State for certain specified culverts, and multiply them together to arrive at a number that supposedly quantifies the fish production lost because of each culvert. The State contends that this is an improper use of the terms of the PI formulas.

The Tribes argue that Mr. Waldo simply used the State's own figures and methods, both of which have been in use for years to determine run size and are therefore well-established. This "production coefficient" method was used in 1997 by Dr. Sekulich to inform the Washington Legislature that "an additional 200,000 adult salmon would be produced annually" if 177 culverts were repaired. The Tribes argue that the BPH equation remains an integral part of the State's culvert analysis system. However, the PI was developed to determine relative benefit from fixing individual culverts, not absolute benefit in terms of individual streams. It is useful to determine

priorities, but the P x H equation is too speculative in terms of predicting potential fish production to be meaningful, as there are too many other factors affecting salmon populations that are not included in the calculation. For example, the P factor is determined individually for each species of salmon, and for the purposes of calculating PI the P factors for all salmon species are added together. In reality, the different species compete with one another for space, and the P factor does not take this inter-species competition into account. Using the P numbers calculated by the State in a simple P x H calculation would result in a predicted production number that is too high. Similarly, the H number does not take into account other factors which may reduce available habitat on the stream—such as the presence of other, non-DOT culverts, other habitat modifications, and many other environmental factors. In the absence of data on the number of salmon that actually arrive at a given culvert and whose passage is impeded, Mr. Waldo's calculations, and all further calculations based on Mr. Waldo's work, are too speculative to provide a meaningful measure of damages.

The motion in limine (Dkt. # 573) is accordingly GRANTED.

(3) Tribes' Motion to Exclude Testimony of David Smelser (Dkt. # 574)

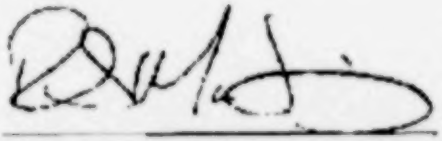
The Tribes ask to exclude the testimony of the State's "cost estimation" expert David Smelser. They contend that although the State originally identified Mr. Smelser as an expert in their case-in-chief, they withdrew that designation on April 2, 2009, reserving the right to identify him as a rebuttal witness in

accordance with an agreed Scheduling Order the parties developed. At Mr. Smelser's August 6, 2009 deposition, the Tribes learned that Mr. Smelser intended to offer much more than rebuttal testimony, despite having been withdrawn as a "case in chief" witness. The Tribes then withdrew their designation of Dr. Patricia Galloway as a witness in their case in chief, intending to rely on historical cost data only. They contend in this motion that Mr. Smelser cannot now testify as he was designated only as a rebuttal witness to Dr. Galloway's testimony.

The State argues that the distinction between rebuttal and primary witnesses is "hyper-technical," and that Mr. Smelser's testimony is "responsive" to the Tribe's cost estimates regardless whether Dr. Galloway testifies. However, once the State designated Mr. Smelser as a rebuttal witness only, that is the only function he can serve. If the Tribes have withdrawn Dr. Galloway as a primary witness and intend to rely only on historical cost data, that is the testimony which can be rebutted.

This motion is limine (Dkt. # 574) is accordingly GRANTED.

Dated this 8th day of October, 2009.



RICARDO S. MARTINEZ
UNITED STATES DISTRICT JUDGE

UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF WASHINGTON
AT SEATTLE

UNITED STATES OF AMERICA, et al., Plaintiffs, v. STATE OF WASHIGNTON, et al., Defendants.	Case No. CV 9213RSM Subproceeding No. 01-01 ORDER ON CROSS-MOTIONS FOR SUMMARY JUDGMENT

This matter was initiated by a Request for Determination ("Request") filed in 2001 by plaintiffs Suquamish Indian Tribe, Jamestown S'Klallam, Lower Elwha Band of Klallam, Port Gamble Clallam, Nisqually Indian Tribe, Nooksack Tribe, Sauk-Suiattle Tribe, Skokomish Indian Tribe, Squaxin Island Tribe, Stillaguamish Tribe, Upper Skagit Tribe, Tulalip Tribe, Lummi Indian Nation, Quinault Indian Nation, Puyallup Tribe, Hoh Tribe, Confederated Bands and Tribes of the Yakama Indian Nation, Quileute Indian Tribe, Makah Nation, and Swinomish Tribal Community (hereafter, "the Tribes"). It is now before the Court for consideration of cross-motions for summary judgment filed by defendant State of Washington ("State") and by the plaintiff Tribes.[1] Dkt. ## 287, 295. Oral argument was

[1]Plaintiff United States of America has substantially joined in the Tribes' opposition to the State's motion. Dkt. # 313.

heard on the motions on February 1, 2007. The parties were then referred to the Honorable J. Kelley Arnold, United Magistrate Judge, for a settlement conference. The Court was advised on May 10, 2007 that the mediation was unsuccessful, and the matter was ripe for issuance of a decision on the summary judgment motions. The matter is set for trial on September 24, 2007.

The memoranda, exhibits, and arguments of the parties have been fully considered by the Court, as has the prior case history. For the reasons set forth below, the Court shall grant the Tribes' motion for partial summary judgment, and shall deny the summary judgment motion filed by the State of Washington.

BACKGROUND

This is a designated subproceeding of *United States, et al., v. State of Washington, et al.*, C70-9213. The United States, in conjunction with the Tribes, initiated this sub-proceeding in early 2001, seeking to compel the State of Washington to repair or replace any culverts that are impeding salmon migration to or from the spawning grounds. The Request for Determination, filed pursuant to the permanent injunction in this case, maintains that the State has a treaty-based duty to preserve fish runs so that the Tribes can earn a "moderate living". The State's original Answer asserted cross- and counter- Requests for Determination, claiming injunctive and declaratory relief against the United States for placing a disproportionate burden of meeting the treaty-based duty (if any) on the State. The State also asserted that the United States has managed its own

lands in such a way as to create a nuisance that unfairly burdens the State.

In 2001, the United States moved to dismiss the counterclaims, contending that it has not waived sovereign immunity with respect to these claims, and that the State lacks standing to assert tribal rights derived from the Treaties. The Court originally denied the motion to dismiss, but upon reconsideration the motion to dismiss the counterclaims was granted. The Court found that it lacked jurisdiction over the State's counterclaims because sovereign immunity has not been waived. A subsequent motion by the State for leave to file an amended Answer asserting counterclaims was denied. These cross-motions for summary judgment followed.

The parties have cooperated fully with one another throughout these proceedings, including discovery and settlement negotiations. They agree that material facts are not in dispute. Nevertheless, they have been unable to arrive at a settlement, and now ask the Court to resolve the legal issues presented.

DISCUSSION

This subproceeding arises from the language in Article III of the 1855 Treaty of Point Elliot ("Stevens Treaties") in which the Tribes were promised that "[t]he right of taking fish, at all usual and accustomed grounds and stations, is further secured to said Indians, in common with all citizens of the Territory . . . " Dkt. # 287-2. The Tribes, in their Request for Determination, state that they brought this action

> to enforce a duty upon the State of Washington to refrain from constructing and maintaining culverts under State roads that degrade fish habitat so that adult fish production is reduced, which in turn reduces the number of fish available for harvest by the Tribes. In part due to the reduction of harvestable fish caused by those actions of the State, the ability of the Tribes to achieve a moderate living from their Treaty fisheries has been impaired.

Request for Determination, Dkt. # 1, p. 1. .

The Tribes requested mandatory relief "requiring Washington to identify and then to open culverts under state roads and highways that obstruct fish passage, for fish runs returning to or passing through the usual and accustomed grounds and stations of the plaintiff tribes."[2] *Id.* Specifically, they request a declaratory judgment, establishing that (1) the right of taking fish secured by the Treaties imposes a duty upon the State of Washington to refrain from diminishing the number of fish passing through, or to or from, the Tribes' usual and accustomed fishing grounds by improperly constructing or maintaining culverts under State-owned roads and highways; and that (2) the State has

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[2]According to testimony and exhibits provided by the Tribes, culverts may become impassable to fish either because they are blocked by silt or debris, or because they are "perched"—that is, the outfall of the culvert is several feet or more above the level of the stream into which it flows. Salmon migrating upstream to spawn are stopped by a perched culvert and cannot reach their spawning grounds.

violated, and continues to violate, the duty owed the Tribes under the Stevens Treaties. Further, the Tribes request a prohibitory injunction, prohibiting the State of Washington and its agencies from constructing or maintaining any culverts that reduce the number of fish that would otherwise return to or pass through the usual and accustomed fishing grounds of the Tribes. Finally, they request a mandatory injunction, requiring the State to (1) identify, within eighteen months, the location of all culverts constructed or maintained by State agencies, that diminish the number of fish in the manner set forth above, and (2) fix, within five years after judgment, and thereafter maintain all culverts built or maintained by any State agency, so that they do not diminish the number of fish as set forth above. *Id.*, pp. 6-7.

The State has moved for summary judgment as to all aspects of the Request. The Tribes have moved for partial summary judgment as to the declaratory judgment portion of their Request. Shortly before the February 1, 2007 hearing, the parties stipulated to define the scope of this subproceeding to include "only those culverts that block fish passage under State-owned roads." Dkt. # 341. Therefore, culverts that do not actually block fish passage, as well as tidegates, are not within the scope of this subproceeding. *Id.*

The Tribes, in their Request, assert that between 1974, the year that this case was originally decided, and 1986, Tribal harvests of anadramous [sic] fish (salmon and steelhead) rose dramatically, eventually reaching some 5 million fish. Then harvests declined, so that by 1999 harvests were back

down to the 1974 levels.[3] The Tribes contend that "[a] significant reason for the decline of harvestable fish has been the destruction and modification of habitat needed for their survival." Request for Determination, Dkt. # 1, ¶¶ 2.5, 2.6, 2.7.

The Request addresses one specific type of habitat modification: the placement of culverts rather than bridges where roadways cross rivers and streams. The Tribes allege that when such culverts are improperly built or maintained, they block fish passage up or down the stream, "thereby preventing out-migration of juvenile fish to rearing areas or the salt water, or the return of adult fish to spawning

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[3]These figures are supported by the Declaration of Keith Lutz, a fisheries biologist with the Northwest Indian Fisheries Commission, filed in support of the Tribes' motion for partial summary judgment. The table presented by Mr. Lutz indicates that harvest levels in 1974 and 1975 were 860,537 and 1,001,041 fish respectively. The number of fish harvested rose steadily to 5,494,973 in 1985. Numbers of fish harvested then fluctuated between approximately three and four million fish for the next several years, higher in the odd-numbered years when large numbers of pink salmon were harvested. After 1991, harvests of four million fish were not seen again, and after the 1993 harvest of 3,497,537 fish the numbers declined dramatically, dipping as low as 575,958 in 1999. While post-1999 harvest numbers have risen somewhat, to 2,148,802 fish taken in 2003, the Tribal harvest through 2004 (the last year reported in this exhibit) remained less than half that of the years 1985 to 1991. Declaration of Kieth [sic] Lutz, Dkt. # 299.

beds, or both." *Id.*, ¶ 3.1. According to the Tribes, culverts under State-owned or maintained roads block fish access to at least 249 linear miles of stream, thus closing off more than 400,000 square meters of productive spawning habitat, and more than 1.5 million square meters of productive rearing habitat for juvenile fish. *Id.*, ¶ 3.7. The Tribes state that, by the State's own estimates, removal of the obstacles presented by blocked culverts would result in an annual increase in production of 200,000 fish, many of which would be available for Tribal harvest. *Id.*, ¶ 3.8.

The State does not dispute the fact that a certain number of culverts under State-owned roads present barriers to fish migration. The State notes that 18% of the culverts on land managed by the Department of Natural Resources ("DNR") were identified as barriers in a 2000 inventory. Washington State Parks ("WDP") have identified 120 culverts as fish passage barriers. And of the thousands of culverts passing under roads maintained by the Washington State Department of Transportation ("WSDOT"), the State asserts that "most", but not all, allow free passage of migrating fish—meaning that many do not.[4] Motion for Summary Judgment, pp. 8-11.

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[4]Although the State's motion did not set the number, an expert declaration filed in support of the Tribe's motion found 1,113 barrier culverts in the combined jurisdiction of the WSDOT and the Washington Department of Fish and Wildlife ("WDFW"), in addition to those included in the WDP

The State argues that the Tribes have produced no evidence that the blocked culverts "affirmatively diminish[] the number of fish available for harvest". State's Reply, Dkt. # 319, p. 2. The Tribes have, however, produced evidence of greatly diminished fish runs. While there may be other contributing causes for this, the conclusion is inescapable that if culverts block fish passage so that they cannot swim upstream to spawn, or downstream to reach the ocean, those blocked culverts are responsible for some portion of the diminishment. It is not necessary for the Tribes to exactly quantify the numbers of "missing" fish to proceed in this matter.

The issue then becomes a purely legal one: whether the Tribes' treaty-based right of taking fish imposes upon the State a duty to refrain from diminishing fish runs by constructing or maintaining culverts that block fish passage. The State asserts that this question has already been answered, and the Tribes' position rejected, by the Ninth Circuit Court of Appeals. However, that is not a correct characterization of the appellate court's prior rulings in this matter.

In 1976, after the Tribes won recognition of their treaty-based right to a fair and equitable share of harvestable fish in Phase I of this case, this Court turned to address environmental issues raised earlier. One of two questions addressed by the Court in Phase II was "whether the right of taking fish incorporates the right to have treaty fish protected from

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and DNR culvert counts. Declaration of Ronald McFarlane, Dkt. # 300, ¶ 8.

environmental degradation." *United States v. Washington*, 506 F. Supp. 187, 190 (1980). The district court held that "implicitly incorporated in the treaties' fishing clause is the right to have the fishery habitat protected from man-made despoliation [sic]." *Id.*, at 203. The Court then assigned to the State a burden "to demonstrate that any environmental degradation of the fish habitat proximately caused by the State's actions (including the authorization of third parties' activities) will not impair the tribes' ability to satisfy their moderate living needs." *Id.* at 207.

The Ninth Circuit Court of Appeals reversed this portion of the district court's order, but not as conclusively as the State suggests.

> Let us repeat the essence of our interpretation of the treaty. Although we reject the environmental servitude created by the district court, we do not hold that the State of Washington and the Indians have no obligations to respect the other's rights in the resource Instead, . . . we find on the environmental issue that the State and the Tribes must each take reasonable steps commensurate with the resources and abilities of each to preserve and enhance the fishery when their projects threaten then-existing levels.

United States v. Washington, 694 F.2d 1374, 1389 (9th Cir. 1982).

Upon request for rehearing *en banc*, the three-judge panel's opinion was vacated. *United States v. Washington*, 759 F.2d 1353, 1354 (9th Cir. 1985). A highly divided eleven-member court issued a *per*

curiam decision vacating the district court's declaratory judgment on the environmental issue. The court's order did not contain broad and conclusive language necessary to reject the idea of a treaty-based duty in theory as well as in practice. Instead, the Court found that the declaratory judgment on environmental issues was imprecise and lacking in a sufficient factual basis.

> We choose to rest our decision in this case on the proposition that issuance of the declaratory judgment on the environmental issue is contrary to the exercise of sound judicial discretion. The legal standards that will govern the State's precise obligations and duties under the treaty with respect to the myriad State actions that may affect the environment of the treaty area will depend for their definition and articulation upon *concrete facts which underlie a dispute in a particular case*. Legal rules of general applicability are announced when their consequences are known and understood in the case before the court, not when the subject parties and the court giving judgment are left to guess at their meaning. It serves neither the needs of the parties, nor the jurisprudence of the court, nor the interests of the public for the judiciary to employ the declaratory judgment procedure to announce legal rules imprecise in definition and uncertain in dimension. Precise resolution, not general admonition, is the function of declaratory relief. These necessary predicates for a declaratory judgment have not been met with respect to the environmental issues in this case.

> The State of Washington is bound by the treaty. If the State acts for the primary purpose or object of affecting or regulating the fish supply or catch in noncompliance with the treaty as interpreted by past decisions, it will be subject to immediate correction and remedial action by the courts. In other instances, *the measure of the State's obligation will depend for its precise legal formulation on all of the facts presented by a particular dispute.*

Id. at 1357 (emphasis added).

The appellate court's ruling, then, cannot be read as rejecting the concept of a treaty-based duty to avoid specific actions which impair the salmon runs. The court did not find fault with the district court's analysis on treaty-based obligations, but rather vacated the declaratory judgment as too broad, and lacking a factual basis at that time.[5] The court's

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[5] Neither the majority opinion, nor any of the dissenting or concurring opinions rejected the district court's analysis on treaty-based obligations. Indeed, three of the dissenting judges would have affirmed the district court's declaratory judgment on environmental issues. Judge Nelson flatly stated, "I agree with the district court that the Tribes have an implicit treaty right to a sufficient quantity of fish to provide them with a moderate living, *and the related right not to have the fishery habitat degraded to the extent that the minimum standard cannot be met. I also agree that the State has a correlative duty to*

language, however, clearly presumes some obligation on the part of the State; not a broad "general admonition" as originally imposed by the district court, but a duty which could be defined by concrete facts presented in a particular dispute. This dispute, limited as it is to "only those culverts that block fish passage under State-owned roads", is capable of resolution through the declaratory relief requested by the tribes. The Tribes have presented sufficient facts, in the form of fish harvest data and numbers of blocked culverts, to meet the appellate court's stated requirements for issuance of a declaratory judgment. A narrowly-crafted declaratory judgment such as the one requested here does not raise the specter of a broad "environmental servitude" so feared by the State.

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refrain from degrading or authorizing others to degrade the fish habitat in such a manner." *Id.* at 1367 (emphasis added). Judge Skopil joined in this dissent. *Id.* Judge Norris dissented "for the reasons articulated in Judge Nelson's dissenting opinion." *Id.* at 1368. Judges Sneed and Anderson, who sat on the original three-judge panel and formulated the "reasonable steps" standard set forth above, concurred in the opinion in the interests of collegiality, but did not retreat from the position they took in hearing the case originally. *Id.* at 1360. Judges who concurred in the opinion did so because of the absence or [sic] a case or controversy (Judges Ferguson and Schroeder), or because the declaratory judgment was deemed not an appealable decision (Judge Sneed). And nowhere in the majority opinion did the court state that no duty arises from the treaties.

In moving for summary judgment, the State also asserts that "[n]o treaty language supports 'moderate living' as the measure of any servitude". Motion for Summary Judgment, p. 16. The State argues that the Tribes have proposed that the State has a duty to avoid impairing their ability to earn a "moderate living", but no tribal member can define the term "moderate living". The State further asserts that the term "moderate living" does not appear in the treaty, and that since the treaty is a contract, its provisions must be definite in order to be enforceable. According to the State, "the term is inherently ambiguous." Motion for Summary Judgment, p. 17.

The term "moderate living" was coined by the courts, not the parties. It is thus indeed not a part of the treaty "contract"; it is an interpretation that has been applied by the courts. In *State of Washington, et al., v. Washington State Commercial Passenger Fishing Vessel Association, et al.*, 443 U.S. 658 (1979), the Supreme Court stated,

> We also agree with the Government that an equitable measure of the common right should initially divide the harvestable portion of each run that passes through a "usual and accustomed" place into approximately equal treaty and nontreaty shares, and should then reduce the treaty share if tribal needs may be satisfied by a lesser amount. . . .
>
> The division arrived at by the District Court is also consistent with our earlier decisions

> concerning Indian treaty rights to scarce natural resources. In those cases, after determining that at the time of the treaties the resource involved was necessary to the Indians' welfare, the Court typically ordered a trial judge or special master, in his discretion, to devise some apportionment that assured that the Indians' reasonable livelihood needs would be met. *Arizona v. California*, 373 U.S. at 600. . . .
>
> Thus, [the district court] first concluded that at the time the treaties were signed, the Indians, who comprised three-fourths of the territorial population, depended heavily on anadromous fish as a source of food, commerce, and cultural cohesion. Indeed, it found that the non-Indian population depended on Indians to catch the fish that the former consumed. Only then did it determine that the Indians' present-day subsistence and commercial needs should be met, subject, or [sic] course, to the 50% ceiling.
>
> . . . . As in *Arizona v. California* and its predecessor cases, the central principal here must be that Indian treaty rights to a natural resource that once was thoroughly and exclusively exploited by the Indians *secures so much as, but no more than, is necessary to provide the Indians with a livelihood—that is to say, a moderate living*.

Id. at 686 (citations omitted) (emphasis added).

The State's argument that the term "moderate living" is ambiguous and unenforceable in contract terms is thus without merit. It is neither a "missing

term" in the contract, nor a meaningless provision; it is a measure created by the Court. To the extent that it needs definition, it would be for the Court, not the Tribes, to define it. No party has yet asked that the Court do so, and the Court finds it unnecessary at this time. The Tribes' showing that fish harvests have been substantially diminished, together with the logical inference that a significant portion of this diminishment is due to the blocked culverts which cut off access to spawning grounds and rearing areas, is sufficient to support a declaration regarding the culverts' impairment of treaty rights.

In finding a duty on the part of the State to refrain from blocking fish access to spawning grounds and rearing habitat, the Court has been guided by well-established principles of treaty construction. These were set forth as they applied to the treaties at issue here by the Supreme Court in *State of Washington v. Washington State Commercial Passenger Fishing Vessel Association*.

> [I]t is the intention of the parties, and not solely that of the superior side, that must control any attempt to interpret the treaties. When Indians are involved, this Court has long given special meaning to this rule. It has held that the United States, as the party with the presumptively superior negotiating skills and superior knowledge of the language in which the treaty is recorded, has a responsibility to avoid taking advantage of the other side. "[T]he treaty must therefore be construed, not according to the technical meaning of its words to learned lawyers, but in the sense in which they would naturally be understood by the

Indians." This rule, in fact, has thrice been explicitly relied on by the Court in broadly interpreting these very treaties in the Indians' favor.

Governor Stevens and his associates were well aware of the "sense" in which the Indians were likely to view assurances regarding their fishing rights. During the negotiations, the vital importance of the fish to the Indians was repeatedly emphasized by both sides, and **the Governor's promises that the treaties would protect that source of food and commerce were crucial in obtaining the Indians' assent.** It is absolutely clear, as Governor Stevens himself said, that neither he nor the Indians intended that the latter "should be excluded from their ancient fisheries", *see* n. 9, *supra*, and it is accordingly inconceivable that either party deliberately agreed to authorize future settlers to crowd the Indians out of any meaningful use of their accustomed places to fish. That each individual Indian would share an "equal opportunity" with thousands of newly arrived individual settlers is totally foreign to the spirit of the negotiations. Such a "right", along with the $207,500 paid the Indians, would hardly have been sufficient to compensate them for the millions of acres they ceded to the Territory. Moreover, in light of the far superior numbers, capital resources, and technology of the non-Indians, the concept of the Indians' "equal *opportunity*" to take advantage of a scarce resource is likely in practice to mean that the

> Indians' "right of taking fish" will net them virtually no catch at all. . . .

Id. at 675-677 (citations omitted; emphasis in bold added, emphasis in italics in original).

After rejecting the State's "equal opportunity" theory, the Court went on to discuss the meaning of "in common with" as used in the treaties.

> But we think greater importance should be given to the Indians' likely understanding of the other words in the treaties and especially the reference to the "right of *taking* fish"—a right that had no special meaning at common law but that must have had obvious significance to the tribes relinquishing a portion of their pre-existing rights to the United States in return for this promise. This language is particularly meaningful in the context of anadromous fisheries—which were not the focus of the common law—because of the relative predictability of the "harvest". In this context, it makes sense to say that a party has a right to "take"—rather than merely the "opportunity" to try to catch—some of the large quantities of fish that will almost certainly be available at a given time.
>
> . . . .
>
> This interpretation is confirmed by additional language in the treaties. The fishing clause speaks of "securing" certain fishing rights, a term the Court has previously interpreted as synonymous with "reserving" rights previously exercised. Because the Indians had always

> exercised the right to meet their subsistence and commercial needs by taking fish from treaty area waters, they would be unlikely to perceive a "reservation" of that right as merely the chance, shared with millions of other citizens, occasionally to dip their nets in to the territorial waters.

Id. at 678-680 (citations omitted; emphasis in italics in original).

It was thus the right to *take* fish, not just the right to fish, that was secured by the treaties. The significance of this right to the Tribes, its function as an incentive for the Indians to sign the treaties, and the Tribes' reliance on the unchanging nature of that right, have been set forth in expert declarations provided by the Tribes. Historian Richard White, Ph.D., who has researched the history of the Stevens Treaties, including the intentions, expectations, and understandings of the negotiators on both sides, states that

> [o]ne vital part of the relations that Stevens sought to perpetuate was Indian fishing, both for subsistence and for trade. Stevens and the other treaty negotiators knew well that Puget Sound Indians relied heavily on their fisheries. . . .
>
> . . . .
>
> The Indians themselves expressed the importance of fishing to their way of life, and Stevens and the other negotiators assured them of their continued access to the fisheries. Treaty minutes record that at Point-No-Point,

One-lun-teh-tat, an "Old Sko-komish Indian" worried how they were to feed themselves once they ceded so much land to the whites, while Hool-hole-tan-akim also wanted to retain half the land. "Why," he asked, "should we sell? We may become destitute. Why not let us live together with you?" In the face of such objections, Benjamin F. Shaw, the interpreter, reassured the Indians that they were "not called upon to give up their old modes of living as places of seeking food, but only to confine their houses to one spot." And Michael Simmons, the special Indian agent for Puget Sound, explained that if they retained a large amount of land they would be confined to it, but that "when a small tract alone was left, the privilege was given of going wherever they pleased to fish and work for the whites." In negotiations at Neah Bay, the Makah raised questions about the role that the fisheries were to play in their future. Stevens replied that "far from wishing to stop their fisheries, he intended to send them oil, kettles and fishing apparatus." What Stevens and his negotiators explicitly promised in response to Indian objections was access to the usual places for procuring food and continued economic exchange with the whites.

. . . .

Stevens also sought to preserve Indian fishing rights to reduce the cost of implementing the treaties. In his instructions to Stevens, Mix had emphasized that whatever the form of the treaties, they should incur minimal expenses

> for the government. . . . As the Treaty Commissioners noted in their meeting of December 26, 1854, "it was necessary to allow them to fish at all accustomed places" because this "was necessary for the Indians to obtain subsistence." And securing the Indians a subsistence was critical if Stevens was to follow his very clear instructions to keep the cost of the treaty down. By guaranteeing the Indians a right to their share of the bounty of the land, rivers, and Sound, the treaties would enable them to feed themselves at little cost to the government.

Declaration of Richard White, Dkt. # 296, ¶¶ 8, 9, 11.

It was thus the government's intent, and the Tribes' understanding, that they would be able to meet their own subsistence needs forever, and not become a burden on the treasury.

> Stevens and the other negotiators believed that the abundant fisheries they had observed in Puget Sound would continue unabated forever. Early white accounts of these fisheries breathlessly reported that they were inexhaustible. . . . It was not until the 1890's that scientists began to caution that salmon and other stocks might not remain abundant forever.
>
> Stevens and the other negotiators anticipated that Indians would continue to fish the inexhaustible stocks in the future, just as they had in the past. Stevens specifically assured the Indians that they would have access to their normal food supplies now and in the future. At

> the Point Elliot Treaty, Stevens began by speaking of subsistence. "[A]s for food, you yourselves now, as in time past, can take care of yourselves." The question, however, was not whether they could now feed themselves, but rather whether in the future after the huge cessions that the treaties proposed the Indians would still be able to feed themselves. Stevens assured them that he intended that the treaty guarantee them that they could. *"I want that you shall not have simply food and drink now but that you may have them forever."* The negotiators uniformly agreed on the abundance of the fisheries, the dependence of the Indians upon them, their commercial possibilities, and their future "inexhaustibility." Stevens and Gibbs could both foresee and promote the commercial development of the territory, the creation of a commercial fishery by whites, and the continuation of an Indian fishery. They did not see any contradiction between them.

Id. at ¶¶ 13, 14 (emphasis added).

Thus, the Tribes were persuaded to cede huge tracts of land—described by the Supreme Court as "millions of acres"---by the promise that they would forever have access to this resource, which was thought to be inexhaustible. It was not deemed necessary to write any protection for the resource into the treaty because nothing in any of the parties' experience gave them reason to believe that would be necessary. According to historian Joseph E. Taylor II, Ph.D.,

> [d]uring 1854-1855, white settlement had not yet damaged Puget Sound fisheries. During those years, Indians continued to harvest fish for subsistence and trade as they had in the past. Given the slow pace of white settlement and its limited and localized environmental impact, Indians had no reason to believe during the period of treaty negotiations that white settlers would interfere, either directly through their own harvest or indirectly through their environmental impacts, with Indian fisheries in the future. During treaty negotiations, Indians, like whites, assumed that their cherished fisheries would remain robust forever.

Declaration of Joseph Taylor III, Dkt. # 297, ¶ 7.

As Professor White stated, the representatives of the Tribes were personally assured during the negotiations that they could safely give up vast quantities of land and yet be certain that their right to take fish was secure. These assurances would only be meaningful if they carried the implied promise that neither the negotiators nor their successors would take actions that would significantly degrade the resource. Such resource-degrading activities as the building of stream-blocking culverts could not have been anticipated by the Tribes, who themselves had cultural practices that mitigated negative impacts of their fishing on the salmon stocks. Declaration of Robert Thomas Boyd, Dkt. # 298, ¶ 6.

In light of these affirmative assurances given the Tribes as an inducement to sign the Treaties,

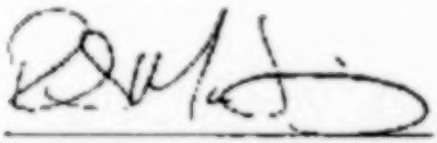
together with the Tribes' understanding of the reach of those assurances, as set forth by the Supreme Court in the language quoted above, this Court finds that the Treaties do impose a duty upon the State to refrain from building or maintaining culverts in such a manner as to block the passage of fish upstream or down, to or from the Tribes' usual and accustomed fishing places. This is not a broad "environmental servitude" or the imposition of an affirmative duty to take all possible steps to protect fish runs as the State protests, but rather a narrow directive to refrain from impeding fish runs in one specific manner. The Tribes have presented sufficient facts regarding the number of blocked culverts to justify a declaratory judgment regarding the State's duty to refrain from such activity. This duty arises directly from the right of taking fish that was assured to the Tribes in the Treaties, and is necessary to fulfill the promises made to the Tribes regarding the extent of that right.

CONCLUSION

Accordingly, the State's motion for summary judgment is DENIED. The Tribes' cross-motion for partial summary judgment is GRANTED. The Court hereby declares that the right of taking fish, secured to the Tribes in the Stevens Treaties, imposes a duty upon the State to refrain from building or operating culverts under State-maintained roads that hinder fish passage and thereby diminish the number of fish that would otherwise be available for Tribal harvest. The Court further declares that the State of Washington currently owns and operates culverts that violate this duty.

This matter is currently set for trial on September 24, 2007. In light of this ruling, a full trial on the merits is no longer necessary. However, further proceedings are needed to determine an appropriate remedy in this matter, so the September 24 date shall remain on the calendar for such proceedings. Counsel shall appear for a status conference on Wednesday, August 29, 2007 at 1:30 p.m. to discuss further proceedings.

Dated this 22 day of August 2007.



RICARDO S. MARTINEZ
UNITED STATES DISTRICT JUDGE

UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF WASHINGTON
AT SEATTLE

UNITED STATES OF AMERICA, et al., Plaintiffs, v. STATE OF WASHIGNTON, et al., Defendants.	No. C70-9213 Subproceeding No. 01-1 (Culverts) ORDER GRANTING UNITED STATES' AND DENYING WASHINGTON'S MOTIONS FOR JUDGMENT

THIS MATTER comes before the court on two related motions. The United States has filed a motion to strike, or for judgment on, fifteen of the twenty affirmative defenses asserted in the State of Washington's Answer to the Plaintiff Tribes' Request for Determination ("RFD") and to the United States' Response to the RFD. Washington has also filed what is essentially a cross-motion, seeking judgment on the pleadings regarding the "law of the case" in which it contends that the relief sought in the Tribes' RFD is barred by prior judicial decisions.[1] Having now reviewed the pleadings filed in support of and in opposition to these motions, together with the relevant portions of the record, and being fully advised, the court finds and rules as follows:

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[1] Washington's motion for judgment re: law of the case separately seeks judgment as a matter of law on this affirmative defense, which is also embraced by the United States' motion to strike.

I. DISCUSSION

A. Washington's Affirmative Defenses

1. Waiver and Estoppel

The affirmative defenses laid out in paragraphs 6.1 through 6.8 of Washington's answer are based on the doctrines of waiver or estoppel. Washington believes that the United States' conduct in funding and approving Washington's roadway culverts prevents it from now asserting a claim that those culverts violate the plaintiff Tribes' treaty rights. The United States argues that neither waiver nor estoppel are tenable defenses when the United States is acting to enforce the rights of Indian tribes.

The United States has correctly identified the binding authority that forecloses Washington's attempt to use waiver or estoppel defenses in this case. *See, e.g., Cramer v. United States*, 261 U.S. 219 (1923) (acts of government agent do not bind government and cannot constitute waiver of Indian rights); *Pine River Logging & Improvement Co. v. United States*, 186 U.S. 279 (1902) (same); *United States v . Washington*, 157 F. 3d 630 (9th Cir. 1998) (estoppel defense cannot be asserted to defeat claims enforcing Indian rights); *Swim v . Bergland*, 696 F.2d 712 (9th Cir. 1983) (same); *United States v. Ahtanum Irrigation Dist.*, 236 F.2d 321 (9th Cir. 1956) (same). Washington has not presented any on-point authority to the contrary, and its argument in opposition to the United States' motion fails to controvert the clear

legal principles laid out in the cases cited above. Because the defenses of waiver and estoppel are simply not available to defeat the United States' instant action to enforce the plaintiff Tribes' treaty rights, the government is entitled to judgment as a matter of law on the affirmative defenses asserted in paragraphs 6.1 through 6.8 of Washington's answer.

2. Constitutional Defenses

The United States argues that Washington's constitutional defenses, asserted under the Equal Footing Clause, the Guarantee Clause, and the Tenth Amendment to the United States Constitution, are legally insufficient under the instant circumstances. Washington responds that the treaty right asserted in this case may not be consistent with its admission as a state into the federal union, that it may violate the Guarantee Clause's promise of a republican government, and that it impinges on rights reserved to the states under the Tenth Amendment. Washington further argues that these defenses present questions that deserve further development and attention during this litigation and which preclude summary dismissal.

The court disagrees. As Washington admits, the Equal Footing doctrine has been rejected as a basis for limiting Indian tribes' treaty fishing rights for a century or more. *E.g. United States v. Winans*, 198 U.S. 371 (1905). Indeed, these very parties were reminded that Washington's admission "into the Union upon an equal footing with the original states had no effect upon the treaty rights of the Plaintiff tribes." *United states v. Washington*, 157 F.3d 630, 646 (9th Cir. 1998) (quoting Final Decision No. 1, 384

F. Supp. 312, 401 (W.D. Wash. 1974)). Washington responds that the relief sought in this subproceeding is based not on express treaty rights, but instead on an implied right to habitat conservation, and is thus not subject to the rule last stated. However, that contention rests on a faulty and improper formulation of the plaintiff Tribes' claim. The Tribes and the United States have asked the court to declare that Washington has a duty to manage its culverts in a certain manner so as to guarantee or protect their treaty right to take fish. Whether such a duty exists, and the measure of any such duty, has yet to be determined. What is abundantly clear at this time, however, is that the Tribes are asserting a treaty right, and that right is unaffected by Washington's admission into the union, such that the Equal Footing affirmative defense (paragraph 6.12 of Washington's answer) must fail as a matter of law.

The same is true for Washington's Guarantee Clause defense (paragraph 6.17 of Washington's answer). Washington's claim that the Tribes seek to dictate how the state legislature shall act and to control the expenditure of state funds is simply unfounded and contrary to the plain language of the RFD. Moreover, to the extent that Washington will be forced to act in a particular manner in order to comply with its treaty obligations, that compelled action is no constitutional infringement given the fact that treaties with Indian tribes are expressly part of the "Supreme Law of Land" governing all states. *See* U.S. Const. Art. VI (containing the "Supremacy Clause"); *Missouri v. Holland*, 252 U.S. 416, 432 (1920). The Guarantee Clause is thus no bar to the relief sought in the plaintiffs' RFD.

Washington's defense under the Tenth Amendment (paragraph 6.18 of Washington's answer) can fare no better. The Amendment protects state sovereignty and the federalist structure of our national government, but Washington has nowhere identified any threat to its reserved powers. Again, by operation of the Supremacy Clause, Indian treaties are incorporated into the body of paramount law binding both state and federal governments. There can be no valid Tenth Amendment defense when the United States seeks to enforce an obligation under one of these universally binding legal positions. *Id. See also Minnesota v. Mille Lacs Band of Chippewa Indians*, 526 U.S. 172, 204 (1999).

3. Political Question Doctrine

The United States correctly notes that Washington's political question affirmative defense, asserted in paragraph 6.13 of its answer, cannot be sustained where the case does not implicate the relationship between the coordinate branches of the federal government. *See Baker v. Carr*, 369 U.S. 186, 210 (1962) (holding that political question doctrine is implicated in "the relationship between the judiciary and the coordinate branches of the Federal Government, and not the federal judiciary's relationship to the States"). Apparently conceding this point, Washington argues that a political question is raised because the Tribes have presented claims for which no judicially determinable standards for decision exist. Washington relies primarily on the procedural history of the former "Phase II" of this litigation in support of this argument.

However, Washington overstates the significance of the prior holdings in Phase II. Although the Ninth Circuit Court of Appeals vacated this court's order with respect to the Tribes' right to prevent environmental degradation, it left open the possibility that such a right exists and left for future tribunals the question of how to measure that right. *See United States v. Washington*, 759 F.2d 1353, 1357 (9th Cir. 1985). There is simply no support in the record or case law for the proposition that this court is ill-equipped to determine the appropriate legal standards for deciding the issues presented herein. Under these circumstances, Washington's political question affirmative defense lacks any merit.

4. Self-execution of Treaties

Washington alleges in paragraph 6.14 of its answer that the Stevens treaties at issue in this case are not self-executing and thus not binding on the State absent Congressional ratification. This position has been repeatedly rejected, including by the Supreme Court in closely-related litigation. *See Washington v. Washington State Commercial Passenger Fishing Vessel Assn.*, 443 U.S. 658, 693 (1979). Nevertheless, Washington seeks to save this affirmative defense by claiming that the particular rights asserted in this subproceeding are only *implied by* self-executing rights, and are not themselves self-executing. Yet this argument is based on the flawed characterization of the Tribes' claims heretofore rejected by the court. *See supra*, § I.A.2. Because the Tribes are seeking to measure and enforce their right to take fish, which right is indisputably self-executing, *Passenger Fishing Vessel*, 443 U.S. at 693, this affirmative defense is legally unavailing.

5. Washington's Compliance With the Endangered Species Act

Washington describes its Endangered Species Act ("ESA") compliance affirmative defense as an assertion that "any alleged treaty habitat obligation affecting the State's construction and maintenance of culverts is subsumed by Washington's ESA compliance because the United States has expressly said so." Washington's Opposition to the United States' Motion to Strike at 15. It cites nothing in support of this proposition.

Moreover, Washington's position defies logic. Washington's compliance with the ESA in particular actions or projects does not necessarily satisfy its treaty obligations any more than satisfying its treaty obligations would suffice for compliance with the ESA. The duties imposed by each originate with different legal sources, and are measured by different legal standards. That being so, Washington's ESA affirmative defense essentially reduces to another variation on the waiver and estoppel argument, namely that it has complied with the Stevens treaties "because the United States said so," summarily rejected above. However it is framed, the court concludes that this affirmative defense, set forth in paragraph 6.15 of Washington's answer, cannot survive the United States' motion to strike.

B. Washington's Motion for Judgment on the Pleadings

Washington's Motion for Judgment on the Pleadings Re: Law of the Case seeks judgment as a matter of law that the relief requested by the plaintiff Tribes, and the United States on their behalf, in this

subproceeding is barred by the preclusive effect of prior legal determinations, and asks that the litigation be terminated on that basis. Specifically, Washington argues that the Tribes are not, as a matter of law, guaranteed a treaty right to "earn a moderate living" from their treaty fishery because numerous courts have already rejected that contention, citing *Washington Passenger Fishing Vessel*, 443 U.S. 658, and the *United States v. Washington* complex of cases. Both the Tribes and the United States have filed memoranda opposing this motion, in which they argue that Washington has mischaracterized the nature of the remedy they seek and has misread the holdings on which Washington's argument relies. The United States asks the court to strike this "law of the case" theory as an affirmative defense, which is set out in paragraph 6.11 of Washington's answer.

Having closely reviewed the applicable pleadings, the court rejects Washington's formulation of the relief plaintiffs seek in this matter. Washington's motion proceeds, at the outset, on a faulty premise by suggesting that the Tribes are suing to enforce their right to earn a moderate living. This mischaracterization oversimplifies the remedies sought in the Request for Determination, and unfairly casts it in terms that may facially conflict with prior judicial decisions. Instead, it is clear to the court that the plaintiffs are seeking to prevent the state from interfering with the treaty right of taking fish by affirmatively diminishing the number of fish available for harvest.

Furthermore, the court does not read the cases Washington relies on in the manner which

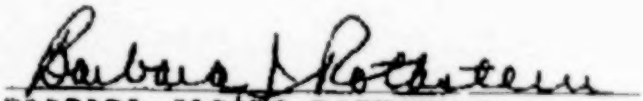
Washington suggests, and rejects the claim that those decisions preclude litigation of the Tribes' instant attempt to ensure that Washington does not build and manage its roadway culverts in a fashion that impermissibly blocks the passage of fish destined for the Tribes' usual and accustomed fishing grounds. For example, the Ninth Circuit Court of Appeals, in dismissing the Phase II litigation, explicitly recognized that the "state of Washington is bound by the treaty. If the State acts for the primary purpose or object of affecting or regulating the fish supply or catch in noncompliance with the treaty as interpreted by past decisions, it will be subject to immediate correction and remedial action by the courts. In other instances (when the state does not act with the primary purpose of regulating fish supply), the measure of the State's obligation (to avoid environmental degradation) will depend for its precise legal formulation on all of the facts presented by a particular dispute." *United States v. Washington*, *supra*, 759 F.2d at 1357. Nothing in the *Passenger Fishing Vessel* decision conflicts with this recognition that Washington's duty with respect to the environment, imposed by the treaty, is a realistic possibility.

Whether the Tribes have a treaty-based right to insist on the remedies they seek from the state remains to be determined. But nothing in prior decisions precludes this court from considering the issues raised in the RFD. Because the instant litigation is not controlled or foreclosed by prior rulings, Washington's law of the case affirmative defense fails as a matter of law.

II. CONCLUSION

For the reasons detailed above, the court finds that fifteen of Washington's affirmative defenses are insufficient as a matter of law. The United States' motion to strike, or in the alternative to grant judgment on, those affirmative defenses is GRANTED and the affirmative defenses are hereby STRICKEN from Washington's answer. The court also concludes that Washington's motion for judgment on the pleadings is without merit, and that motion is hereby DENIED.

Dated at Seattle, Washington this 5th day of September, 2001.



BARBARA JACOBS ROTHSTEIN
UNITED STATES DISTRICT JUDGE